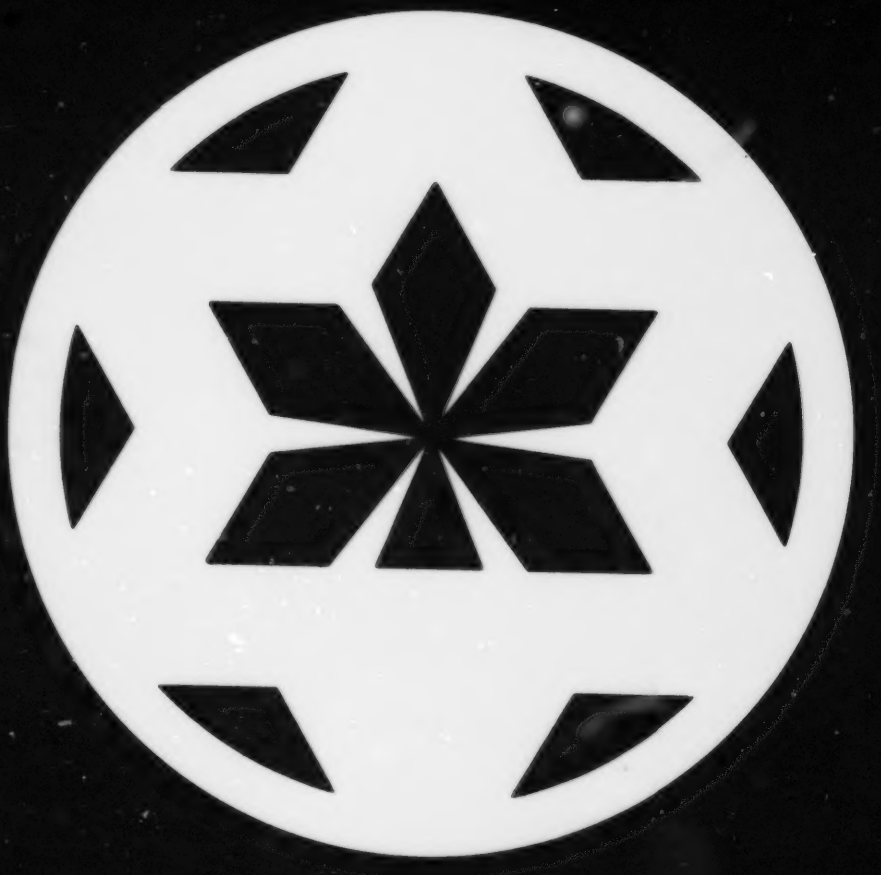
Canadian
Geoscience
Council

Conseil
Géoscientifique
Canadien



Current research in the Geological Sciences in Canada
May 1984 - April 1985

Travaux en cours dans le domaine des sciences géologiques au Canada
mai 1984 à avril 1985

Canada

1985

86-1447/

GEOLOGICAL SURVEY
PAPER 85-5

COMMISSION GÉOLOGIQUE
ÉTUDE 85-5

CANADIEN GEOSCIENCE COUNCIL
LE CONSEIL GÉOSCIENTIFIQUE CANADIEN

CURRENT RESEARCH IN THE GEOLOGICAL SCIENCES IN CANADA, MAY 1984 - APRIL 1985

TRAVAUX EN COURS DANS LE DOMAINE DES SCIENCES GÉOLOGIQUES AU CANADA, DE MAI 1984 À AVRIL 1985

Compiled by / Préparé par
THOMAS E. BOLTON

1985

Minister of Supply and Services Canada 1985

Available in Canada through

authorized bookstore agents and other bookstores

or by mail from

Canadian Government Publishing Centre
Supply and Services Canada
Ottawa, Canada K1A 0S9

and from

Geological Survey of Canada offices:

601 Booth Street
Ottawa, Canada K1A 0E8

3303-33rd Street N.W.,
Calgary, Alberta T2L 2A7

100 West Pender Street
Vancouver, British Columbia V6B 1R8
(mainly B.C. and Yukon)

A deposit copy of this publication is also available
for reference in public libraries across Canada

Cat. No. M44-85/5E Canada: $4.00
ISBN 0-660-11932-3 Other countries: $4.80

Price subject to change without notice

CONTENTS/TABLE DES MATIERES

INTRODUCTION

1 AREAL MAPPING, 1:50 000 OR MORE DETAILED/
CARTOGRAPHIE, 1:50 000 OU À PLUS GRANDE ÉCHELLE
1 British Columbia/Colombie-Britannique
1 Manitoba/Manitoba
1 New Brunswick/Nouveau-Brunswick
1 Newfoundland/Labrador/Terre-Neuve/Labrador
1 Northwest Territories/Territoires du Nord-Ouest
2 Nova Scotia/Nouvelle-Écosse
2 Ontario/Ontario
2 Québec
3 Saskatchewan/Saskatchewan
3 Yukon Territory/Territoire du Yukon

3 AREAL MAPPING, LESS DETAILED THAN 1:50 000/
CARTOGRAPHIE, À PLUS PETITE ÉCHELLE QU'AU 1:50 000
3 Alberta/Alberta
3 British Columbia/Colombie-Britannique
4 Newfoundland/Labrador/Terre-Neuve/Labrador
4 Northwest Territories/Territoires du Nord-Ouest
4 Ontario/Ontario
5 Québec
5 Saskatchewan/Saskatchewan
5 Yukon Territory/Territoire du Yukon

5 ENVIRONMENTAL GEOSCIENCE/SCIENCES DE LA TERRE
APPLIQUÉES A L'ENVIRONNEMENT

6 GEOCHEMISTRY/GÉOCHIME
6 Analytical methods and analysis/Méthodes analytiques et analyses
7 Exploration, organic/Appliquée, organique
7 Exploration, non-organic/Appliquée, non-organique
8 General/Généralités

9 GEOCHRONOLOGY/GÉOCHRONOLOGIE

10 GEOLOGICAL COMPUTER APPLICATIONS/APPLICATIONS
DE L'INFORMATIQUE À LA GÉOLOGIQUE

11 GEOMATHEMATICS/MATHÉMATIQUE DE LA TERRE

11 GEOMORPHOLOGY/GÉOMORPHOLOGIE

12 GEOPHYSICS/GÉOPHYSIQUE
12 Electrical/Méthodes électriques
12 Exploration/Prospection
13 Geomagnetism-paleomagnetism/Géomagnetisme-paléomagnétisme
14 Gravity/Gravité
14 Seismology and physics of interior/Sismologie et
et physique de l'intérieur de la terre
14 Other/Autre

15 GEOTECHNIQUE/GÉOTECHNIQUE
15 Engineering geology/Géologie de l'ingénieur
15 Geothermal/Géothermique
15 Permafrost/Pergélisol
16 Rock mechanics/Mécanique des roches
16 Soil mechanics/Mécanique des soils
16 Snow and ice/Neige et glace

17 GLACIOLOGY/GLACIOLOGIE

17 HYDROGEOLOGY/HYDROGÉOLOGIE

18 MARINE GEOSCIENCE/OCÉANOGRAPHIE

19 MINERAL/ENERGY GEOSCIENCE/SCIENCES DE LA TERRE APPLIQUÉES AUX MINÉRAUX ET A L'ÉNERGIE
19 Coal geology/Géologie du charbon
20 Industrial minerals/Substances minérales industrielles
20 Mineral deposition exploration/evaluation/Recherche et évaluation des gîtes de minéraux
25 Petroleum exploration/evaluation/Recherche et évaluation des gîtes de pétrole
25 General/Généralités

27 MINERALOGY/CRYSTALLOGRAPHY/ MINÉRALOGIE/CRISTALLOGRAPHIE

29 PALEONTOLOGY/PALÉONTOLOGIE
29 Invertebrate/Invertébrés
31 Vertebrate/Vertébrés
32 Paleobotany/palynology/Paléobotanique et analyse pollinique

33 PETROLOGY/PÉTROLOGIE
33 Experimental/Expérimental
33 Igneous/Roches ignées
35 Metamorphic/Roches métamorphiques
36 Sedimentary/Roches sédimentaires
36 General/Généralités

36 QUATERNARY GEOLOGY/GÉOLOGIE DU QUATERNAIRE

40 REMOTE SENSING/TELÉDETECTION

40 SEDIMENTOLOGY/SÉDIMENTOLOGIE
40 Ancient sediments/Sédiments anciens
41 Recent and unconsolidated sediments/Sédiments récents et non consolidés

43 STRATIGRAPHY/STRATIGRAPHIE
43 Precambrian/Précambrien
43 Paleozoic/Paléozoique
44 Mesozoic/Mésozoique
45 Cenozoic/Cénozoique

45 STRUCTURAL GEOLOGY/TECTONICS/GÉOLOGIE STRUCTURALE/TECTONIQUE
45 Alberta/Alberta
45 British Columbia/Colombie-Britannique
45 New Brunswick/Nouveau-Brunswick
46 Newfoundland/Labrador/Terre-Neuve/Labrador
46 Northwest Territories/Territoires du Nord-Ouest
46 Nova Scotia/Nouvelle-Écosse
46 Ontario/Ontario
46 Québec
47 Saskatchewan/Saskatchewan
47 Yukon Territory/Territoire du Yukon
47 General/Généralités

48 VOLCANOLOGY/VOLCANOLOGIE

49 ORGANIZATIONS REPORTING/ÉTABLISSEMENTS DÉCLARANTS

50 LIST OF GRANT AWARDS IN THE EARTH SCIENCES FOR 1984-85/LISTE DES SUBVENTIONS ATTRIBUÉES AUX SCIENCES DE LA TERRE EN 1984-85

67 RESEARCHER INDEX/INDEX DES CHERCHEURS

INTRODUCTION

The present publication recording research in progress in Canada from May 1984 to April 1985 is the result of a survey conducted between January, 1985 and March, 1985.

The research projects listed in this compilation are being undertaken mainly within federal and provincial departments, and universities. Data on industrial research was not received. A relatively complete overview of scientific research activities within Canada in the geological and allied sciences, however, is provided for the survey period.

Using the data supplied for this compilation by the respondees, some indication as to the lines of research receiving the greatest and least attention can be formulated. At least 315 research projects have not been previously reported. The greatest increase during the 1984-85 period was in the fields of Mineral/Energy Geoscience (73), Petrology (30) and Areal Mapping (25). Research projects undertaken as graduate thesis in the universities are so specified wherever possible.

Additional details on research in the earth and related sciences underway in Canada during 1984 can be obtained through the annual reports prepared by individual university departments, research councils, and museums. Comprehensive reports on geophysical research and development, including volcanology and oceanography related research, are contained within the Canadian Geophysical Bulletin published by the Earth Physics Branch of the Department of Energy, Mines and Resources. Summaries of progress and short research reports related to hydrology/water-related environmental research and glaciology are provided annually by the Water Resources Branch of the Department of Environment Canada and the Associate Committee on Hydrology, National Research Council. Quaternary research in Québec is reviewed annually in the "Bulletin d'information de l'Association québecoise pour l'étude de Quaternaire".

Again this year a listing is included of the 1984 awards provided for geological research within the Research Agreements programs of the Departments of Energy, Mines and Resources, Environment Canada, and Indian and Northern Affairs Canada. The Natural Sciences and Engineering Research Council Canada also provided a computer print-out of the operating grants actually awarded in 1984. The 1984 Ontario Research Grants and Polar Continental Shelf Project field support to non-governmental activities are also listed.

Use of the compilation

The projects are grouped under main headings that cover the majority of disciplines within the geological and allied sciences. These groupings are unchanged from last years compilation (Geological Survey of Canada, Paper 84-5, 1984).

A complete list of organizations contributing to the present survey is included. Acknowledgment is made in particular to those who assembled and forwarded the data on research projects underway in the organizations under their direction. As a convenience, an alphabetically arranged index lists each investigator and the reference number(s) of his project(s).

INTRODUCTION

La présente publication, qui fait état de la recherche réalisée au Canada de mai 1984 à avril 1985, est le fruit d'une enquête effectuée entre Janvier 1985 et mars 1985.

Les projets de recherche enumérés sont exécutés surtout par des ministères fédéraux et provinciaux, et par des universités. Les données sur la recherche industrielle n'ont pas été reçues. Un aperçu assez complet de l'activité de recherche scientifique au Canada pour la periode visée dans le domaine de la géologie et des sciences connexes est cependant fourni.

À partir des renseignements donnés par les participants à l'enquête, il est possible de voir quels genres de recherche retiennent le plus et le moins l'attention. Au moins 315 projets nous ont été signalés pour la première fois. Les domaines où la recherche s'est le plus accrue durant l'année 1984-1985 sont les sciences de la Terre-Énergie/Minéraux (73), la Pétrologie (30) et la Cartographie (25). Les projets de recherche de 2e cycle, dans les universités, sont également précisés, dans la mesure du possible.

On peut se procurer de plus amples détails sur la recherche réalisée en 1984 au Canada dans le domaine des sciences de la Terre et des sciences connexes en consultant les rapports annuels mis au point par les différents départements l'universités, conseils de recherche et musées. Le volume du Canadian Geophysical Bulletin, publié par la Direction de la physique du Globe du ministère de l'Énergie, des Mines et des Ressources, comprend des rapports complets sur les travaux de recherche et les dernières réalisations en géophysique, y compris la recherche connexe en volcanologie et en océanographie. Des résumés des progrès réalisés et de brefs rapports ayant trait à la glaciologie et à la recherche environnementale liée à l'hydrologie sont publiés annueullement par la Direction des ressources en eau d'Environnement Canada et par le Comité associé de l'hydrologie, du Conseil national de recherches du Canada. La recherche sur le Quaternaire au Québec est signalée anneullement dans le "Bulletin d'information de l'Association québecoise pour l'étude du Quaternaire".

Nous incluons à nouveau cette année une liste des prix décernés en 1984 pour la recherche géologique dans le cadre des programmes d'accords de recherches des ministères de l'Énergie, des Mines et des Ressources, de l'Environnement, et de les Affaires Indiennes et du Nord. Le Consiel de recherches en sciences naturelles et en génie du Canada a également fourni un imprimé d'ordinateur détaillant les subventions aux travaux réellement accordées en 1984. On a signalé également dans ce rapport les subventions de recherche de la Commission Géologique de l'Ontario (Ontario Research Grants) et l'aide de l'Étude du plateau continental polaire en faveur d'activités non gouvernementales pour 1984.

Présentation

Les projets sont groupés sous des titres généraux s'appliquant à la majorite des disciplines que comprennent la géologie et les sciences connexes. Ces catégories sont les mêmes que l'année dernière (Étude 84-5, Commission géologique du Canada, 1984).

Une liste complète des organismes qui ont contribué à l'enquête a été dressée. Nous tenons à remercier particulièrement les personnes qui ont recueilli et envoyé les données concernant les projets de recherche en cours dans les organismes dont elles sont responsables. Pour vous faciliter la consultation, un répertoire alphabétique donne les noms de tous les enquêteurs et le(s) numero(s) de reférence de son(ses) projets(s).

BRITISH COLUMBIA/ COLOMBIE-BRITANNIQUE

1. ALLDRICK, D.J., McMILLAN, W.J., British Columbia Ministry Energy, Mines, Petrol. Res.:
   Salmon River project (NTS 104B/1), 1982-84.

   See:

   Stratigraphy and petrology of the Stewart mining camp (104B/1); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 316-341, 1985.

   Geologic setting of the precious metal deposits in the Stewart area (104B/1); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1984-1, p. 149-164, 1984.

   Volcanic stratigraphy and structure of the Stewart mining camp. Preliminary map due out in 1985.

2. ANDERSON, R.G., Geol. Surv. Can.:
   Geology of the Iskut River-Telegraph Creek area, British Columbia, 1984-.

3. DANNER, W.R., Univ. British Columbia (Geological Sciences):
   Geology of the limestones of the Cache Creek-Meadow Lake area, Marble Range, British Columbia, 1965-.

   Field mapping of the area of Cache Creek Triassic and Permian-Pennsylvanian limestones. Description of the fusulinid faunas and petrology of the limestones, their stratigraphy and how they relate to plate tectonics. Also includes studies of the distribution and origin of the bedded radiolarian cherts.

4. DANNER, W.R., Univ. British Columbia (Geological Sciences):
   Geology of the limestones of the Harper Ranch area near Kamloops, British Columbia, 1984-86.

   Field mapping of the area of the Harper Ranch and Dome Hills north and east of Kamloops, British Columbia to establish its stratigraphy and paleontology and relate it to Plate tectonics.

5. DODDS, C.J., Geol. Surv. Can.:
   Geology of Skagway (104M) map-area, British Columbia, 1982-.

6. LEGUN, A., British Columbia Ministry Energy, Mines, Petrol. Res.:
   Geology of the Carbon Creek area (NTS 93O/15), British Columbia, 1984-86.

   See:

   Geology of the West Carbon Creek area (93O/15); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 85-1, p. 227-232, 1985.

   Area contains Carbon Creek coal deposit of Utah Mines Ltd.

7. McMECHAN, M.E., Geol. Surv. Can.:
   Detailed geological study of selected areas within the Foothills and Rocky Mountain Belts between Peace River and Smoky River with emphasis on structure, British Columbia and Alberta, 1981-.

8. PRICE, R.A., Geol. Surv. Can.:
   Operation Bow-Athabasca, British Columbia and Alberta, 1965-.

9. SCHIARIZZA, P., PRETO, V.A., MacLAREN, G., FORSTER, D., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
   Geology of the Adams Plateau-Clearwater area, British Columbia, 1978-85.

   To determine the structural and stratigraphic setting of mineral deposits in the area.

10. SCHROETER, T.G., PANTELEYEV, A., DIAKOW, L.J., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
    Toodoggone Gold-Silver Camp, British Columbia, 1974-86.

    See:

    Toodoggone River area (94E); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 291-298, 1985.

    Potassium-argon age determinations from biotite and hornblende in Toodoggone volcanic rocks; ibid., p. 299, 300, 1985.

    Preliminary geological/mineral deposits map at 1:50 000 to be released in mid-1985. Aim to produce a Bulletin by the end of 1986.

11. TEMPELMAN-KLUIT, D.J., Geol. Surv. Can.:
    Penticton map area 82E, British Columbia, 1983-.

12. WOODSWORTH, G.J., Geol. Surv. Can.:
    Eastern margin of the Coast Plutonic Complex, British Columbia, 1980-.

MANITOBA/MANITOBA

13. BAILES, A.H., SYME, E.C., Manitoba Dept. Energy and Mines:
    Flin Flon-White Lake, Manitoba, 1979-85.

    In 1984 the final stages of field mapping for the Flin Flon-White Lake Project were completed. Preparation of a report and final map is proceeding, with release of the final report scheduled for 1986. Primary objectives of the project are a stratigraphic subdivision of the Proterozoic Amisk Group in the Flin Flon area and placement of mineral deposits within the stratigraphic framework. Emphasis during the project has been on documentation of volcanic environments and geochemistry of major units.

14. GILBERT, H.P., WEBER, W., TUREK, A., Manitoba Dept. Energy and Mines:
    Island Lake, Manitoba, 1981-85.

    Advances in the U-Pb zircon geochronology of the Island Lake greenstone belt, Manitoba.

15. HERD, R.K., Geol. Surv. Can.:
    Geology of the Island Lake map-area (53E), Manitoba and Ontario, 1976-.

16. ZWANZIG, H.V., SCHLEDEWITZ, D.C.P., Manitoba Dept. Energy and Mines:
    Kisseynew project, Manitoba, 1982-.

    The Kisseynew project provides 1:50 000 and local 1:20 000 scale maps with reliable structural and stratigraphic control for the base and precious metal deposits in the Kisseynew Lake-Sherridon-Batty Lake region north of the Flin Flon greenstone belt.

NEW BRUNSWICK/ NOUVEAU-BRUNSWICK

17. IRRINKI, R.R., New Brunswick Dept. Nat. Res. (Geol. Surv. Br.):
    Geology of Big Bald Mountain map area, NTS 21O/1, New Brunswick, 1982-85.

NEWFOUNDLAND/LABRADOR/ TERRE-NEUVE/LABRADOR

18. BLACKWOOD, R.F., Newfoundland Dept. Mines and Energy:
    Grey River area, southwest coast of Newfoundland, 1984-86.

    See:

    Geology of the Grey River area, southwest coast of Newfoundland; Newfoundland Dept. Mines and Energy, Report 85-1, p. 153-164, 1985.

    Mapping of the Grey River Enclave on a 1:50 000 scale has been completed. Probable Ordovician metasedimentary and metavolcanic rocks are surrounded by Devonian granitoids. These metamorphic rocks are correlated with similar rocks of Ordovician age in the Hermitage Flexure area of southern Newfoundland.

19. COLMAN-SADD, S., Newfoundland Dept. Mines and Energy:
    Bay d'Espoir-Great Burnt Lake project, 1974-.

    See:

    A tectonic window in central Newfoundland? Geological evidence that the Appalachian Dunnage Zone may be allochthonous; Can. J. Earth Sci., vol. 21, no. 12, p. 1349-1367, 1984.

20. DICKSON, W.L., DELANEY, P.W., POOLE, J., Newfoundland Dept. Mines and Energy, Memorial Univ. (Earth Sciences):
    Geology and geochemistry of the Burgeo and François granites, southern Newfoundland, 1984-89; M.Sc. thesis (Poole).

    See:

    Geology of the Burgeo Granite and associated rocks in the Ramea (11P/11) and La Hune (11P/10) map areas, southern Newfoundland; Newfoundland Dept. Mines and Energy, Report 85-1, p. 137-144, 1985.

    Geology of the François Granite, south coast of Newfoundland; ibid., p. 145-152, 1985.

    The Burgeo granite is a multiphase intrusion of granodiorite and granite which has intruded Ordovician metasediments and metavolcanics. The batholith was intruded during the later stages of the Siluro-Devonian Acadian Orogeny. The François granite is a post-Acadian complex composed of two coalescing intrusions. Well-developed concentric intrusions of high-silica granites dominate the northeastern part of the intrusion. Both the Burgeo and François granites have been sampled for rock geochemistry.

21. HERD, R.K., Geol. Surv. Can.:
    Geology of Red Indian Lake, west-half, Newfoundland, 1977-83.

22. O'BRIEN, S.J., Newfoundland Dept. Mines and Energy:
    Geology of the Burgeo and Burnt Pond areas, Newfoundland, 1984-.

    See:

    Geology of the Burgeo (11P/12) map area, southwestern Newfoundland; Newfoundland Dept. Mines and Energy, Report 85-1, p. 114-123, 1985.

    Geology of the west half of the Burnt Pond (12A/3) map area, Newfoundland; ibid., p. 124-131, 1985.

    To complete regional mapping and related studies of granite-migmatite and metasedimentary terrane of the Hermitage Flexure of the Newfoundland Appalachians.

NORTHWEST TERRITORIES/ TERRITOIRES DU NORD-OUEST

23. EASTON, R.M., JACKSON, V.A., PADGHAM, W.A., YEO, G., Indian and Northern Affairs Canada (Geol. Div.):
    Hepburn Island (76M) map sheet, Slave Province, Northwest Territories, 1982-85.

24. HELMSTAEDT, H., YEO, G., JACKSON, V.A., Indian and Northern Affairs Canada (Geol. Div.):
    Northern portion of the Yellowknife greenstone belt, Slave Province, Northwest Territories, 1983-85.

    See:

    Geological mapping of Sito Lake area and status of map compilation and field work in Yellowknife Volcanic belt; Indian and Northern Affairs Canada, Geoscience Forum, Exploration Overview, p. 24, 1986.

    The geological map of the Sito Lake area is in preparation. Mapping in 1985 will concentrate on the area between Sito and Quyta Lakes, completing the structural/stratigraphic economic analysis of this area at this scale (1:10 000).

25. HENDERSON, J.B., Geol. Surv. Can.:
Keskarrah Bay map-area, District of Mackenzie, 1976-.

26. HOFFMAN, P.F., Geol. Surv. Can.:
East Arm of Great Slave Lake, District of Mackenzie, 1966-.

See:

U-Pb zircon ages from Athapuscow aulacogen, East Arm of Great Slave Lake, N.W.T., Canada; Can. J. Earth Sci., vol. 21, no. 11, p. 1315-1324, 1984.

27. JACKSON, V.A., PADGHAM, W.A., ELLIS, J., HOWSON, S., RELF, C., Indian and Northern Affairs Canada (Geol. Div.):
Geology of the Mistake Lake area (76M/11) Anialik River greenstone belt, Slave Province, Northwest Territories, 1984.

See:

The Anialik River greenstone belt revisited; Indian and Northern Affairs Canada, Geoscience Forum, Exploration Overview, p. 25-26, 1984.

A continuation of a larger (DIAND) project (1974, 1982-85) aimed at completing 1:50 000 scale mapping of the Hepburn Island (76M) sheet. Detail in this area, required because of structural and stratigraphic complexities outlined in previous years. Encompasses examination of: 1) the Anialik River granite, gneiss and its relationship to surrounding supracrustal rocks and 2) several of the major supracrustal lithologies. Follow-up work at present includes radiometric age dating, and petrographic analysis.

28. JAMES, D.T., DIXON, J.M., CARMICHAEL, D.M., Queen's Univ. (Geological Sciences):
Geology across part of the Thelon Front, Northwest Territories, 1985-86; Ph.D. thesis (James).

See:

Geology of the Moraine Lake area and the Thelon Front, District of Mackenzie; Geol. Surv. Can., Paper 85-1A, p. 449-454, 1985.

To map the geology on either side of and across the Thelon Front and to discuss the significance of the structural and metamorphic variations observed across this boundary.

29. LAPORTE, P.J., Indian and Northern Affairs Canada (Geol. Div.):
Geology of the Sissons Lake area, Northwest Territories, 1981-85.

30. MORROW, D.W., Geol. Surv. Can.:
Southwestern Ellesmere – western Devon Islands (Operation Grinnell), District of Franklin, 1967-.

31. THORSTEINSSON, R., Geol. Surv. Can.:
Cornwallis and adjacent smaller islands, District of Franklin, 1965-.

See:

A sulphide deposit containing galena, in the Lower Devon Disappointment Bay Formation on Baillie Hamilton Island, Canadian Arctic Archipelago; Geol. Surv. Can., Paper 84-1B, p. 269-278, 1984.

32. YEO, G.M., PADGHAM, W.A., JACKSON, V.A., RELF, C., Indian and Northern Affairs Canada (Geol. Div.):
Geology of western Hepburn Island area (NTS 76M/west), Northwest Territories.

To complete 1:50 000 scale map coverage of the Archean granite-greenstone terranes in this portion of the Slave province and synthesis of the data into a major publication and 1:250 000 scale regional map. In 1985, the southern portion of the High Lake greenstone belt and eastern portions of 76M will be mapped.

NOVA SCOTIA/NOUVELLE-ÉCOSSE

33. BOEHNER, R. GILES, P.G., PRIME, G., Nova Scotia Dept. Mines and Energy:
Sydney Basin project (Carboniferous basins studies), 1982-85.

Data collection through field mapping and stratigraphic test drilling completed. Final geological maps prepared and awaiting publication with reports to follow.

34. RAESIDE, R.P., BARR, S.M., JAMIESON, R.A., MACDONALD, A.S., Acadia Univ. (Geology), Dalhousie Univ. (Geology):
Stratigraphy, structure and metamorphism of the Cape Breton Highlands, Victoria and Inverness Counties, Nova Scotia, 1985-.

See:

Geology of the Ingonish River-Wreck Cove area, Cape Breton Island, Nova Scotia; Nova Scotia Dept. Mines and Energy, Report 84-1, p. 249-258, 1984.

Preliminary mapping has been completed south of the Cape Breton Highlands National Park and has outlined an eastern plutonic belt. The central Highlands are mainly metamorphic, but previous correlations appear very tenuous. Stratified rocks are clastic and volcaniclastic, and indicative of deep water clastic environments. Deformation and metamorphism occurred in the ?Late Hadrynian.

ONTARIO/ONTARIO

35. BEAKHOUSE, G.P., Ontario Geol. Surv.:
Precambrian geology of the Western Birch Lake area, Ontario, 1985-.

36. CONROD, D.M., NALDRETT, A.J., EVENESEN, N.M., Univ. Toronto (Geology):
Petrologic, geochemical, isotopic and paleomagnetic investigations of three areas of the Nipissing Diabase (Portage Bay, Cobalt; Lake Wanapitei, Sudbury; Sault Ste. Marie), 1984-87; M.Sc. thesis (Conrod).

To determine the form of the Nipissing Intrusions, investigate mineralogical and geochemical variations throughout the intrusions, investigate the degree of crustal contamination through Nd-Sm and Rb-Sr isotopic studies, investigate paleomagnetic signatures and evaluate the platinum group element potential of the Nipissing Diabase. Mapping had begun in the Cobalt, Lake Wanapitei and Sault Ste. Marie areas in the summer of 1984 and will be completed in 1985. Petrological and geochemical analyses are presently being undertaken.

37. EASTON, R.A., Ontario Geol. Surv.:
Howland area, Grenville Province: Haliburton, Peterborough and Victoria Counties, Ontario, 1983-88.

See:

Precambrian geology of the Howland area, Haliburton, Peterborough and Victoria Counties; Ontario Geol. Surv., Prel. Map P.2699, 1984.

38. EASTON, R.M., Ontario Geol. Surv.:
Digby-Lutterworth area, Grenville Province, Ontario, 1984-88.

See:

Digby-Lutterworth area: Haliburton and Victoria counties; Ontario Geol. Surv., Misc. Paper 119, p. 75-81, 1984.

Detailed mapping in Minden 1:50 000 scale topographic sheet. Area incompletely mapped prior to this study. Map area straddles Central Metasedimentary Belt-Gneiss Belt boundary of the Grenville Province. Mapping to date indicates the presence of large thrust sheets in the area, and increasing deformation to the CMB-CGB boundary. Boundary zone is an area of major tectonic disruption and may be late in history of the map area. Map area adjacent to Howland area mapped in 1983, and Lochlin and Anson areas to be mapped in 1985 and 1986 respectively.

39. STOTT, G.M., Ontario Geol. Surv.:
Regional stratigraphy and tectonic history of the central Uchi Subprovince, Northwestern Ontario, 1984-86.

Regional definition of major volcanic cycles by stratigraphic mapping, geochemistry and U-Pb geochronology. Regional tectonic strain patterns in greenstone belts and sequence of interactive plutonic and tectonic events to be established.

QUÉBEC

40. AMYOT, D., CONSORTIUM AMTEC-BÉLIVEAU-COUTURE, Québec Ministère Énergie et Ressources:
Région de Walbank-Deville, Québec, 1984-85.

Cartographie géologique systématique au 1:20 000 d'une région de la Gaspésie nord-central. Travail de terrain completé. Rapport final déposé.

41. DE BROUCKER, G., Québec Ministère Énergie et Ressources:
Stratigraphie et structure des Groupes de Maquereau et de Mictaw, Québec, 1982-85; thèse de doctorat.

Voir:

Géologie des Groupes de Mictaw et de Maquereau; Québec Ministère Énergie et Ressources, DP 84-09, 1985.

Cartographie géologique au 1:20 000, avec interprétation tectonique, du Groupe de Mictaw et ses environs. Travaux de terrain terminés. Rapport final attendu.

42. DESJARDINS, D., KISH, L., Québec Ministère Énergie et Ressources:
Région du Lac Barrin, Groupe de Wakeham, Côte-Nord, Québec, 1984-85.

Objectifs: Détermination de la stratigraphie volcanique; évaluation du potentiel minéral.

43. DUBOIS, J-M.M., GWYN, Q.H.J., Univ. Sherbrooke (Géographie):
Le Quaternaire de l'île d'Anticosti, Québec, 1979-87.

Voir:

Le point dans la controverse minimaliste-maximaliste sur le comportement des bordures glaciaires wisconsiniennes; 25è Congrès Internat. Géogr., Paris, résumés des communications, Tome I, p. 130, 1984.

Déglaciation et émersion des terres de l'ouest de l'île d'Anticosti, golfe du Saint-Laurent (Québec); Géographie physique et Quaternaire, vol. 38, no. 2, p. 93-111, 1984.

Les travaux de terrain sont pratiquement terminés, sauf dans la partie est. La cartographie préliminaire est terminée.

44. GOSSELIN, C., Québec Ministère Énergie et Ressources:
Région de Maria, Québec, 1984-85.

Carte géologique au 1:20 000 des roches ordovicien des supérieures à dévoniennes inférieures de la région de Maria. Phase de terrain terminée. Rapport final soumis.

45. HERVET, M., LAMOTHE, D., Québec Ministère Énergie et Ressources:
Région de la Vallée Narsajuaq, fosse de l'Ungava, Nouveau-Québec, 1984-85.

Une synthèse géologique de la fosse de l'Ungava (ceinture de Cap Smith-Maricourt), et une évaluation de son potentiel minéral fait partie d'un projet à long terme qui a débuté en 1983.

46. HOCQ, M., Québec Ministère Énergie et Ressources:
Projet Joutel-Quévillon, Abitibi, Québec, 1980-85.

Faire la carte géologique au 1:20 000 de ± 3500 km² dais de volcanics et sediments au S de Joutel. Objectifs: stratigraphie, tectonique, cadres volcanologiques, sedimentologiques. Debut du rapport final et de la unite en carte définitive (1:20 000 et 1:50 000 éventuellement).

47. MALO, M., Québec Ministère Énergie et Ressources:
Géologie de l'Anticlinorium Aroostook-Percé, Est de la Gaspésie, Québec, 1981-85; thèse de doctorat.

Voir:

Anticlinal d'Aroostook-Percé dans les cantons d'Honorat, Weir et Raudin; Québec Ministère Énergie et Ressources, DP 84-18, 1985.

Cartographie au 1:20 000, avec études stratigraphiques et structurales, des Groupes de Matapédia et d'Honorat, est de la Gaspésie. Travail de terrain terminé. Rapport final attendu.

48. GORIN, R., TECHNISOL INC., Québec Ministère Énergie et Ressources:
Région de Squatec-Cabano, Québec, 1984-85.

Cartographie géologique systématique au 1:20 000 d'une partie de la région de Témiscouata. Travail de terrain completé. Rapport géologique final attendu.

49. OWEN, V., BÉLANGER, M., Québec Ministère Énergie et Ressources:
Région du Lac Leif, Québec, 1984-85.

Reconnaissance géologique, évaluation du potentiel minéral du territoire à l'est de la fosse du Labrador. Fait partie d'un projet à long terme qui a débuté en 1983.

50. RONDOT, J., LAVERGNE, G., KISH, L., Québec Ministère Énergie et Ressources:
Région de Forestville-Les Escoumins, Québec, 1984-85.

Objectif: Une reconnaissance géologique du territoire.

51. ROY, C., LAMOTHE, D., Québec Ministère Énergie et Ressources:
Région du Lac Bélanger, fosse de l'Ungava, Nouveau-Québec, 1984-85.

Une synthèse géologique de la fosse de l'Ungava (ceinture de Cap-Smith-Maricourt), et une évaluation de son potentiel minéral fait partie d'un projet à long terme qui a débuté en 1983.

52. SHARMA, K.N.M., LAUZIÈRE, K., Québec Ministère Énergie et Ressources:
Projet Capisisit – Desmaraisville, Québec, 1981-84.

Voir:

Geologie de la région de Desmaraisville; Québec Ministère Énergie et Ressources, DP 84-10, 1985.

Synthèse géologique. Phase terminale.

53. SIMARD, M., CONSORTIUM AMTEC-BÉLIVEAU-COUTURE, Québec Ministère Énergie et Ressources:
Région de Power-Joncas, Québec, 1984-85.

Cartographie géologique systématique au 1:20 000 d'une région dans la partie est-central de la Gaspésie. Travail de terrain completé. Rapport final déposé.

54. SLIVITZKY, A., TECHNISOL INC., Québec Ministère Énergie et Ressources:
Région de Cap-des-Rosiers, Québec, 1984-85.

Cartographie géologique systématique au 1:20 000 d'une région du nord-est de la Gaspésie. Travail de terrain completé. Rapport final attendu.

55. THOMAS, A., CULSHAW, N.G., WOOD, D., MANNARD, G., WHELAN, G., Newfoundland Dept. Mines and Energy:
Geology of the Winokapau Lake area, Grenville Province, Labrador; Geology of the Lac Ghyvelde-Lac Long area, Grenville Province, Labrador and Quebec, 1982-85.

Study area will be published as two separate GSC papers covering Winokapau Lake area and Lac Ghyvelde-Lac Long respectively. All geochem data will have been entered into a computer file data base by summer 1985, along with limited petrographic data on metamorphic mineral assemblages.

56. TREMBLAY, G., Québec Ministère Énergie et Ressources:
Groupe de Maquereau, Québec, 1984-85.

Cartographie géologique au 1:20 000 de la partie centrale de la superficie du Groupe de Maquereau, région entre Port-Daniel et Chandler. Travail de terrain terminé. Rapport final attendu.

57. VAN DER LEEDEN, J., BÉLANGER, M., Québec Ministère Énergie et Ressources:
Région du Lac Mistinibi, Nouveau-Québec, 1984-85.

Reconnaissance géologique, évaluation du potentiel minéral du territoire à l'est de la Fosse du Labrador. Fait partie d'un projet à long terme qui a débuté en 1983.

SASKATCHEWAN/SASKATCHEWAN

58. HARPER, C., Saskatchewan Geol. Surv.:
Thematic geological mapping: Waddy Lake area, Saskatchewan, 1984-.

See:

Geological mapping, Waddy Lake area; Saskatchewan Energy Mines, Misc. Rept. 84-4, p. 6-20, 1984.

1:20 000 scale remapping of the northern portion of the central La Ronge belt containing potentially economic occurrences of gold and base metals. Lithogeochemistry studies to characterize the volcanic rocks and determine their tectonic setting. Metallogeny of important mineral commodities such as gold.

59. THOMAS, D.J., Saskatchewan Geol. Surv.:
Gold belt geology; geological mapping – La Ronge gold belt, Saskatchewan, 1984.

See:

Geological mapping, Star Lake area (part of NTS 73P-16 and 74A-1); Saskatchewan Energy Mines, Misc. Rept. 84-4, 1984.

To undertake 1:20 000 scale geological mapping of the southern portion of the La Ronge greenstone belt. Main objectives will be the definition of the metavolcanic-sedimentary stratigraphy, the characterization of felsic to ultramafic intrusive bodies, and establish the geological setting of precious and base metal mineralization.

YUKON TERRITORY/ TERRITOIRE DU YUKON

60. CAMPBELL, R.B., Geol. Surv. Can.:
Operation Mount St. Elias, Yukon-British Columbia, 1973-.

61. KLASSEN, R.W., Geol. Surv. Can.:
Surficial geology and terrain evaluation, southern Yukon, 1977-.

62. NORRIS, D.K., Geol. Surv. Can.:
Operation Porcupine, Yukon-District of Mackenzie, 1961-.

63. THOMPSON, R.I., Geol. Surv. Can.:
Stratigraphy and structure of Dawson, Larsen Creek and Nash Creek map areas, Yukon Territory, 1980-.

AREAL MAPPING, LESS DETAILED THAN 1:50 000/CARTOGRAPHIE, A PLUS PETITE ECHELLE QU'AU 1:50 000

ALBERTA/ALBERTA

64. GODFREY, J.D., Alberta Research Council (Geol. Surv.):
Geology of Bocquene-Turtle Lakes District, Alberta, 1973-85.

Four maps in press, report in preparation.

65. GODFREY, J.D., LANGENBERG, C.W., Alberta Research Council (Geol. Surv.):
Geology of Myers-Daly Lakes, Alberta, 1973-85.

See:

Geology of the Myers-Daly Lakes district, Alberta; Alberta Research Council, Earth Sciences Rept. 84-6, 1985.

Drafting of four maps for publication 80% complete. Report in preparation.

66. GODFREY, J.D., LANGENBERG, C.W., Alberta Research Council (Geol. Surv.):
Geology of Fitzgerald-Tulip-Mercredi-Charles Lakes District, Alberta, 1974-85.

See:

Geology of the Fitzgerald-Tulip-Mercredi-Charles Lakes district, Alberta; Alberta Research Council, Earth Sciences Rept. 84-7, 1985.

Five maps being drafted for publication: report in preparation.

BRITISH COLUMBIA/ COLOMBIE-BRITANNIQUE

67. GABRIELSE, H., Geol. Surv. Can.:
Operation Finlay, British Columbia, 1970-.

68. GABRIELSE, H., Geol. Surv. Can.:
Operation Dease, British Columbia, 1977-.

See:

Pre-emplacement thrust faulting in the Sylvester allochthon, northeast Cry Lake map-area, British Columbia; Geol. Surv. Can., Paper 85-1A, p. 301-304, 1985.

69. MONGER, J.W.H., Geol. Surv. Can.:
Geology of the Ashcroft and Hope map-areas, British Columbia, 1980-.

See:

Structural evolution of the southwestern Intermontane Belt, Ashcroft and Hope map areas, British Columbia; Geol. Surv. Can., Paper 85-1A, p. 349-358, 1985.

70. RAY, G.E., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Surv.):
Tillicum Mountain gold-silver project, British Columbia, 1984-85.

See:

British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 35-47, 1985.

Gold and silver-bearing skarns at Tillicum Mountain in southern British Columbia, are apparently related to dioritic feldspar porphyry sills that intrude a highly deformed sequence of sedimentary and basic volcanic rocks of Triassic to Early Jurassic age.

71. REESOR, J.E., Geol. Surv. Can.:
Geology of Nelson map area (E/2), British Columbia, 1979-.

72. RODDICK, J.A., Geol. Surv. Can.:
Coast Mountains project, British Columbia, 1963-.

73. THORKELSON, D.J., Univ. British Columbia (Geological Sciences):
Cretaceous volcanics in the Princeton (92H) map area, British Columbia, 1984-86.

See:

Structural evolution of the southwestern Intermontane Belt, Ashcroft and Hope map areas, British Columbia; Geol. Surv. Can., Paper 85-1A, p. 349-358, 1985.

74. WHEELER, J.O., Geol. Surv. Can.:
Lardeau map area, British Columbia, 1979-.

75. WOODSWORTH, G.J., Geol. Surv. Can.:
Kemano Project, British Columbia, 1977-.

NEWFOUNDLAND/LABRADOR/ TERRE-NEUVE/LABRADOR

76. ERMANOVICS, I.F., Geol. Surv. Can.:
Archean rocks of the Nain Province in Hopedale (13N), Snegamook Lake (13K), and Makkovik (13O) map areas, Labrador, 1978-.

77. GOWER, C., Newfoundland Dept. Mines and Energy:
Reconnaissance geology in the eastern Grenville Province, Labrador, 1979-.

See:

Pre-Grenvillian and Grenvillian lithotectonic regions in eastern Labrador – Correlations with the Sveconorwegian orogenic belt in Sweden; Can. J. Earth Sci., vol. 21, p. 678-693, 1984.

This project is gradually extending mapping coverage southward into the interior Grenville Province in eastern Labrador and is being accompanied by geochronological and geothermobarometric studies.

78. NUNN, G.A.G., Newfoundland Dept. Mines and Energy:
Geology of the Atikonak Lake area, Grenville Province, western Labrador, 1982-.

Structure and tectonic history of part of the Grenville Province in Labrador. Data processing in progress.

79. NUNN, G.A.G., Newfoundland Dept. Mines and Energy:
Western Grenville project, Labrador, 1985-.

See:

The Labradorian Orogeny: geochronological database; Newfoundland Dept. Mines and Energy, Report 85-1, p. 43-56, 1985.

To elucidate the structure, age, tectonic history and mineral potential of polyorogenic, high-grade gneiss terranes within the Grenville Province of western Labrador.

80. NUNN, G.A.G., NOEL, N., Newfoundland Dept. Mines and Energy:
Regional geology east of Michikamau Lake, central Labrador, 1980-.

Stratigraphy, structure, mineral potential and geodynamic evolution of area. Final map and report nearing completion.

81. RYAN, B., MARTINEAU, Y., BRIDGWATER, D., KORSTGAARD, J., NUTMAN, A., Newfoundland Dept. Mines and Energy:
A transect of the Archean-Proterozoic boundary, Saglek-Hebron area, northern Labrador, 1982-83.

Project final report will be a G.S.C. paper or bulletin accompanied by A-series 1:100 000 colored map of 14L/2,3,6,7. Maps completed by February 15, 1985. Report in preparation.

82. WARDLE, R.J., ASH, C., Newfoundland Dept. Mines and Energy, Memorial Univ. (Earth Sci.):
Regional geology of the Goose Bay area, Grenville Province, Labrador, 1983-.

Part of a 3-year project which will concentrate on the nature of the relationships between the Mealy Mountains intrusive suite, the Cape Caribou River allochthon, and circa 1650 Ma metamorphites of the interior Grenville Province.

NORTHWEST TERRITORIES/ TERRITOIRES DU NORD-OUEST

83. BOSTOCK, H.H., Geol. Surv. Can.:
Geology of Fort Smith, District of Mackenzie, 1980-.

84. CAMPBELL, F.H.A., Geol. Surv. Can.:
Geology of the Bathurst Inlet area, District of Mackenzie, 1974-.

85. CHRISTIE, R.L., Geol. Surv. Can.:
Melville project, District of Franklin, 1984-.

See:

Stratigraphic and structural studies on Melville Island, District of Franklin; Geol. Surv. Can., Paper 85-1A, p. 629-637, 1985.

86. CIESIELSKI, A., Geol. Surv. Can.:
Gneissic basement to the Fury and Hecla Formation and the Autridge Formation on Baffin Island, District of Franklin, 1979-.

87. FRASER, J.A., Geol. Surv. Can.:
Geology of Woodburn Lake map area, District of Keewatin, 1980-.

88. FRISCH, T., Geol. Surv. Can.:
Precambrian geology of southeast Ellesmere, Devon and Cobourg islands, District of Franklin, 1976-.

89. FRISCH, T., Geol. Surv. Can.:
Geology of Montresor River and lower Hayes River map areas, District of Keewatin, 1982-.

See:

Geology of the Chantrey belt and its environs, lower Hayes River and Darby Lake map areas, northern District of Keewatin; Geol. Surv. Can., Paper 85-1A, p. 259-266, 1985.

90. FRITH, R.A., Geol. Surv. Can.:
Geology of Indian Lake (86B) map area, District of Mackenzie, 1972-.

91. FRITH, R.A., Geol. Surv. Can.:
Geology of Beechey-Duggan Lakes area, District of Mackenzie, 1980-.

92. HENDERSON, J.B., Geol. Surv. Can.:
Healey Lake map area, District of Mackenzie, 1978-.

93. HENDERSON, J.B., Geol. Surv. Can.:
Artillery Lake map area, District of Mackenzie, 1984-.

See:

The northern Artillery Lake map area: a transect across the Thelon Front, District of Mackenzie; Geol. Surv. Can., Paper 85-1A, p. 441-448, 1985.

Reconnaissance ground magnetic and VLF profile data in the vicinity of the Thelon Front, Artillery Lake map area, District of Mackenzie; ibid., p. 455-462, 1985.

94. JACKSON, G.D., Geol. Surv. Can.:
Operation Bylot, District of Franklin, 1967-.

95. JACKSON, G.D., Geol. Surv. Can.:
Operation Penny Highlands, District of Franklin, 1969-.

96. LeCHEMINANT, A.N., Geol. Surv. Can.:
Macquoid Lake (W½), Thirty Mile and Tebesjuak Lake map areas, District of Keewatin, 1978-.

97. LeCHEMINANT, A.N., Geol. Surv. Can.:
Geology of Aberdeen Lake and parts of adjoining map areas, District of Keewatin, 1982-.

See:

Early Proterozoic Amer Group, Beverly Lake map area, District of Keewatin; Geol. Surv. Can., Paper 84-1B, p. 159-172, 1984.

98. PUGH, D.C., Geol. Surv. Can.:
Subsurface geology of Great Bear River map area, District of Mackenzie, 1980-.

99. SCHAU, M., Geol. Surv. Can.:
Geology of the Baker Lake map area, District of Keewatin, 1980-.

100. TELLA, S., Geol. Surv. Can.:
Kamilukuak Lake map area, District of Keewatin, 1979-.

101. TELLA, S., Geol. Surv. Can.:
Deep Rose Lake and parts of adjoining map areas, District of Keewatin, 1980-.

102. THOMPSON, P.H., Geol. Surv. Can.:
Tinney Hills (76J)-Overby Lake (76I W½) map areas, District of Mackenzie, 1983-.

See:

Geology across the western boundary of the Thelon Tectonic Zone in the Tinney Hills-Overby Lake (west half) map area, District of Mackenzie; Geol. Surv. Can., Paper 85-1A, p. 555-572, 1985.

103. TRETTIN, H.P., Geol. Surv. Can.:
Completion of reconnaissance geology, northern Ellesmere Island, District of Franklin, 1973-.

ONTARIO/ONTARIO

104. CARTER, N.W., THURSTON, P.C., Ontario Geol. Surv.:
Goldie and Horne Townships, Ontario, 1984.

See:

Goldie and Horne Townships, District of Thunder Bay; Ontario Geol. Surv., Misc. Paper 119, 1984.

The consolidated rocks of the map area consist of Precambrian rocks comprising an earlier Archean Keewatin-type metasedimentary-metavolcanic sequence intruded by gabbroic and granitoid plutons and unconformably overlain by a later Archean Timiskaming-type metavolcanic-metasedimentary sequence. These two supracrustal groups are steeply folded about easterly and southeasterly axes.

105. DRESSLER, B., Ontario Geol. Surv.:
Geological compilation 1:250 000 of Ontario underlain by Proterozoic rocks, 1984-.

QUÉBEC

106. CIESIELSKI, A., Geol. Surv. Can.:
Metamorphism and structure in northeast Superior Province, Quebec, 1980-.

Voir:

Pétrologie des gneiss du domaine du lac Bienville, sous-province archéene d'Ungava, Québec: rapport d'étape; Geol. Surv. Can., Paper 84-1B, p. 1-10, 1984.

107. CIESIELSKI, A., Geol. Surv. Can.:
Etudes des roches Archéennes et Protérozoiques dans la région du Front de Grenville entre Chibougamau et Val d'Or, Québec, 1984-.

108. DUBOIS, J-M.M., Univ. Sherbrooke (Géographie):
Géologie du Quaternaire de la Côte Nord du Saint-Laurent, 1974-87.

Les travaux de terrain sont complétés; un rapport géologique est prévu.

109. DUBOIS, J-M.M., Univ. Sherbrooke (Géographie):
Carte des mers post glaciaires du Canada: section de la Côte Nord du Saint-Laurent, 1980-85.

Établissement d'une carte au 1:250 000 de la zone de la mer de Goldthwait: dépôts meubles, géomorphologie et littoral actuel. Les cartes de Tadoussac à Havre-Saint-Pierre restent à publier.

SASKATCHEWAN/SASKATCHEWAN

110. MACDONALD, R., SLIMMON, W.L., SIBBALD, T.I.I., THOMAS, D.J., THOMAS, M.W., Saskatchewan Geol. Surv.:
Geological and problems of interpretation, Greater Beaverlodge area, Saskatchewan, 1984-85.

See:

Bedrock compilation, Greater Beaverlodge area, with accompanying 1:100 000 monochrome preliminary map; Saskatchewan Energy Mines, Misc. Rept. 84-4, 1984.

111. THOMAS, M.W., Saskatchewan Geol. Surv.:
Compilation bedrock geology map series covering Precambrian of northern Saskatchewan, 1982-.

Five maps completed and published (Saskatchewan Energy Mines, Repts. 211A, 228A, 229A, 230A and 232A).

YUKON TERRITORY/ TERRITOIRE DU YUKON

112. GORDEY, S.P., Geol. Surv. Can.:
Geology of Nahanni map area, Yukon and Northwest Territories, 1979-.

113. GORDEY, S.P., Geol. Surv. Can.:
Geology of Sheldon Lake (105J) and Tay River (105K) map area, east-central Yukon, 1982-.

ENVIRONMENTAL GEOSCIENCE/SCIENCES DE LA TERRE APPLIQUÉES A L'ENVIRONNEMENT

114. ANDERSON, J.C., BIGRAS, S.C., Environment Canada (National Hydrology Res. Instit.):
Hydrologic studies, Mackenzie Delta, Northwest Territories, 1975-86.

Field studies continued in the eastern Mackenzie Delta region in 1984 at basins in the taiga zone south of Inuvik and in the tundra zone between Inuvik and Tuktoyaktuk, to acquire hydrologic data relevant to the design and construction of the proposed Inuvik-Tuktoyaktuk highway. Data were obtained on one or more of the following variables at each site: culvert ice accumulation thickness, late winter snowpack water equivalent, field season precipitation, air temperature, and discharge. A large recurrent icing was observed in May at Hans Creek, upstream of the proposed highway crossing, and a cross section of a large icing mound on the channel was drilled to obtain a profile of ice thicknesses. Water Survey of Canada continued to assist with the study by monitoring discharge at four sites.

A progress report on the 1983 field season was prepared. Since field work for this study has now been completed, a summary report will be produced in 1985, following analysis of the 1984 data.

115. BIGRAS, S.C., Environment Canada (National Hydrology Res. Instit.):
Lake regimes, Mackenzie Delta, Northwest Territories, 1980-85.

During the spring and summer of 1984 (April to September) an intensive field study of the hydrological regime of a variety of lakes and channels was undertaken in the Mackenzie Delta, NWT. The study is presently in its fifth year of data collection, and was designed to investigate the potential impact that increased flow regulation of the Mackenzie River main stem could have on lake and channel water levels in the Mackenzie Delta.

Water levels and the interaction between unconnected lakes (low- and high closure lakes are also considered as part of this category), connected lakes and their channel systems are being assessed by monitoring water levels at nine sites along the eastern sector of the Delta from April to September, through the use of 16 mm time lapse camera systems. Field measurements of snowpack water equivalents, lake and channel ice thicknesses, and climatic conditions are being collected to establish the importance of break-up to the hydrological regime of the Delta lakes and channels.

Preliminary analysis of the four years of data suggest that the occurrence of ice jams and backwater flooding during break-up were essential to the increase in the water level and subsequent infilling and replenishment of the unconnected (low- and high-closure) lakes which otherwise may have dwindled away. Over the break-up period, channel and connected lake water level fluctuations were directly influenced by ice conditions on Middle Channel and to a lesser extent by those on East Channel. Throughout the open water season water level fluctuations at the channel and connected lake sites reflected the hydrologic conditions of the main channels (i.e. Middle Channel and East Channel). A report on the 1981 Lake Regimes Study is available, and a progress report on the 1982 and 1983 field seasons is in preparation.

116. CHAKRAVORTY, R.N., EMR (CANMET):
Spontaneous combustion characterization of western coals, 1984.

Test methods being developed suitable for Western Canadian low rank thermal coals.

117. DUBOIS, J-M.M., Univ. Sherbrooke (Géographie):
Bibliographie sur les caractéristiques physiques des Cantons de l'Est, Québec, 1971-.

6 000 références ont été publiées jusqu'à maintenant pour couvrir tout le domaine biophysique des Cantons de l'Est. Un 8è rapport est prévu pour 1986.

118. DUPRÉ, J.S., MUSTARD, J.F., UFFEN, R.J., Univ. Toronto, McMaster Univ., Queen's Univ. (Geological Sciences):
Health and safety effects of asbestos, 1980-84.

119. EGGINTON, P.A., Geol. Surv. Can.:
Relationship of flood frequency and heavy metal uptake in growth rings of trees, 1981-.

See:

Moles as agents of erosion in the Ottawa area, Ontario; Geol. Surv. Can., Paper 85-1A, p. 731-733, 1985.

120. EGGINTON, P.A., Geol. Surv. Can.:
Periglacial processes, Canadian Arctic, 1983-.

121. FORTESCUE, J.A.C., Ontario Geol. Surv.:
Regional geochemical mapping in Southwestern Ontario, 1981-84.

See:

The Southwestern Ontario geochemical survey as an example of the micromodule quarter approach to regional geochemical mapping (30 L/13, 14, 15; 30 M/3-6, 11, 12; 40 I/9-16; 40 P/1-12); Ontario Geol. Surv., Map 80715, 1984.

122. FORTESCUE, J.A.C., DIAMOND, M.L., Ontario Geol. Surv.:
The use of remote sensing for the study of acid lakes, 1984-86.

See:

The use of remote sensing for the study of acid lakes, Raaflaub Township, District of Algoma; Ontario Geol. Surv., Misc Paper 119, p. 147-151, 1984.

Remote sensing techniques were combined with lake water and sediment analysis to test a reconnaissance method for identifying lakes affected by acid precipitation in an area north of Sault Ste. Marie, Ontario, and immediately south of the Montreal River. Lake water and sediment samples were collected from 100 lakes in the area of interest. During the sampling, aircraft equipped with an array of sensors were flown over the test area. The resulting database will be interpreted during the winter months and compared with the ground control to develop optimum techniques for identifying recently acidified lakes.

123. GENEST, C., Université du Québec à Trois-Rivières (Géographie):
Approche méthodologique de l'étude de l'influence des reliefs de transition sur l'activité humaine, 1984-86.

Voir:

La géologie du Parc national de la Maurice, éditions Information nature U.Q.T.R.; Contribution à l'étude touristique de la marge de l'oekoumène, pour la revue Loisir et Société, 1985.

Les travaux consistent à cerner l'influence des différents éléments du relief sur l'activité humaine, nous nous intéressons en particulier à la question touristique qui dans le secteur est un grand consommateur d'espace. Il s'agit d'étudier l'interface société-nature par le biais du tourisme et de la géologie.

124. GORMAN, W.A., DEVLIN, J.F., Queen's Univ. (Geological Sciences):
Impact of acid rain on waters of the Kingston area, Ontario, 1983-86.

125. GORMAN, W.A., DEVLIN, J.F., Queen's Univ. (Geological Sciences):
Development of sampling techniques to evaluate concentrations of organic volatiles in groundwater, 1984-85; M.Sc. thesis (Devlin).

126. GORMAN, W.A., DYKE, L., HOLLINGSHEAD, S., Queen's Univ. (Geological Sciences):

Hydrogeologic assessment of alternate land fill design configurations, 1984-85; M.Sc. thesis (Hollingshead).

127. JACKSON, L.E., Jr., Geol. Surv. Can.:
Environmental assessment of coal resource development, Canadian Cordillera, 1977-.

128. JACKSON, L.E., Jr., Geol. Surv. Can.:
Debris flow hazard assessment methodology, alpine and northern upland areas, 1978-.

129. KETTLES, I.M., Geol. Surv. Can.:
Sensitivity of surficial sediments to effects of acid precipitation, 1980-.

130. KING, A.F., Memorial Univ. (Earth Sciences):
Geology of the Waterford River Basin, Newfoundland, 1984.

See:

Geology of the Waterford River Basin, St. John's, Newfoundland; Urban Hydrology of the Waterford River Basin Tech. Rept. T-2, 1984.

This survey of the late Precambrian sedimentary rocks was conducted as part of an urban hydrology study by the Canada and Newfoundland Departments of Environment. The rocks provide evidence of two phases of deformation, assumed to relate to the Avalonian and Acadia Orogenies.

131. PROWSE, T.D., FOGARASI, S., MARSH, P., WATSON, S., Environment Canada (National Hydrology Res. Instit.):
River ice breakup and ice jamming, Mackenzie River Basin, Northwest Territories, 1982-; M.Sc. thesis (Watson).

River ice research has been concentrated on the Liard and Mackenzie rivers including, in particular, a site of recurrent ice jamming at the confluence of these two rivers. The current research program can be divided into three major components. Firstly, photogrammetric interpretation of aerial photographs of breakup is being conducted to derive quantitative information about specific ice jam characteristics, many of which are logistically difficult and in some cases practically impossible to obtain by conventional hydrometric techniques. For example, the height of ice jam shear walls which can be used as surrogate measures of ice jam thickness are being extracted from post-breakup photography. Similarly, the surface topography of ice jams is being contoured to determine ice and water slopes and to investigate the occurrence of grounded ice jams. The second study component concerns the climatology of river ice breakup. At the basin scale, a synoptic classification is being made of the major air masses which prevail during the breakup period. At a smaller scale, a micro-meteorological field study is being conducted to quantify the magnitude and relative importance of atmospheric and river ice flows to the ablation of snow and ice, and to the decrease of ice strength prior to breakup.

The final study component involves the field measurement of a number of hydrologic characteristics of river breakup fronts and ice jams. For example, profiles of ice and water levels throughout the ice jam reach are regularly monitored to derive the energy gradients which control the rate and the manner of the downstream advance of breakup. In some cases, the measurement of ice jam parameters has necessitated the development of some unique instrumentation. A 35 mm camera system has been constructed for use from light aircraft to obtain measurements of ice and water velocities during the breakup period. Presently in the design stage, is a helicopter-operated current meter assembly which will be used to measure the water velocity within open water holes of ice jams.

In the final draft stage is a report entitled "Guidelines for River Ice Data Collection Programs" written from the National Research Council, Working Group on River Ice Jams. The guidelines have been designed to assist in the systematic collection of river ice data in Canada.

132. MARSH, P., Environment Canada (National Hydrology Res. Instit.):
Liard River thermal regime, 1983-86.

During the last two years a study of river heat flux during the spring breakup period has been conducted near the confluence of the Liard and Mackenzie Rivers in the Northwest Territories. The primary objective of this project is to determine the convective heat flux from the river to the overlying ice cover. Field measurements have included water velocity, river discharge, and ice roughness. Data analysis is aimed at determining the heat flux to the ice cover and determining its importance in the removal of ice from the river.

133. MARSH, P., Environment Canada (National Hydrology Res. Instit.):
Hydrologic studies, Mackenzie Delta lakes, Northwest Territories, 1983-87.

A lake hydrology study was initiated in the Mackenzie Delta, Northwest Territories during the summer of 1984. These lakes have a unique and sensitive hydrologic regime since they are underlain by taliks and receive a large input of floodwater during spring breakup when water levels in the Mackenzie River are controlled by ice jamming. The primary objective of this study is to determine the relative importance of a number of processes controlling lake level. Field work has concentrated on measuring the volume of water entering the lake from the Mackenzie River, snowmelt and rain, and in determining the losses of water by evaporation and surface outflow, and establishing whether the lakes are connected to a subpermafrost groundwater system.

134. RASID, H., PHILLIPS, B., OOSTERVELD, M., Lakehead Univ. (Geography, Engineering):
An examination of the Neebing/McIntyre Floodway, Thunder Bay, Ontario, and the effects of channelization, 1983-85.

The Floodway diverts excess discharge from the Neebing River via a uniform trapezoidal channel to the McIntyre River. This river channel has been much modified, and the mouth into Lake Superior relocated by a Km, the old channel being infilled. The pre and past channelization conditions are examined with respect to possible acceleration of erosion and sedimentation.

135. REARDON, E.J., MODDLE, P., Univ. Waterloo (Earth Sciences):
Cover design for uranium tailings close-out; M.Sc. thesis (Moddle).

136. RUKAVINA, N.A., Environment Canada (National Water Res. Instit.):
Great Lakes nearshore sediment database, 1968-85.

A computer database of 3000 bottom-sediment samples, 250 sediment cores, 385 jet (thickness, sub-bottom data) sites and more than 10 000 km of echo sounding records for the nearshore zone of the Canadian waters of the lower Great Lakes.

137. RUKAVINA, N.A., COAKLEY, J.P., ZEMAN, A.J., Environment Canada (National Water Res. Instit.):
Subaqueous erosion in the nearshore zone of the Great Lakes, 1984-89.

Research on the rates and processes of erosion of cohesive lakebed sediments (tills) in the Great Lakes.

138. RUKAVINA, N.A., ZEMAN, A.J., Environment Canada (National Water Res. Instit.):
Coastal sediment budget, north shore of central Lake Erie, 1984-85.

Development of a coastal sediment budget based on detailed onshore and nearshore data collected during surveys in 1979.

GEOCHEMISTRY/GEOCHIMIE

ANALYTICAL METHODS AND ANALYSES/ MÉTHODES ANALYTIQUES ET ANALYSES

139. BERGERON, M., HEAMAN, L.M., INRS-Géoressources, McMaster Univ. (Geology):
Determining the abundance of gadolinium in geological samples by prompt-gamma neutron activation analysis, 1983-84; Ph.D. thesis (Heaman).

The determination of gadolinium in geological samples by the prompt-gamma neutron activation analysis techniques was studied. The results obtained for numerous international geological standard are in good agreement with the <<accepted values>> reported in the literature.

140. BERTRAND, R., INRS-Géoressources:
Maturation thermique, potentiel pétroligène et histoire de la catagenèse des roches post-taconiques de la Gaspésie et de l'Île Anticosti, Québec, 1982-86; thèse de doctorate.

Voir:

Pétrographie du kérogène dans le Paléozoique inférieur: méthode de préparation et exemple d'application; Revue de l'Institut français du Pétrole, vol. 12, 1985.

Zooclasts reflectance as thermal maturation indicators in the pre-Devonian sequences; Geol. Assoc. Can.-Mineral. Assoc. Can., Program with Abstracts, vol. 10, p. A4, 1985.

Pour atteindre les objectifs implicites dans le titre du projet, une calibration de certains indicateurs organique et minéral de maturation est enterprise (réflectance et pyrolyse programmée et argiles). La moitié de la saisie des données de réflectance n'est pas encore complétée.

141. HÉROUX, Y., ACHAB, A., BERTRAND, R., INRS-Géoressources:
Relations entre l'évolution thermique des kérogènes et la géologie structurale des Appalaches du Québec, 1982-85.

Voir:

Pétrographie du kérogène dans le Paléozoique inférieur: Méthode de préparation et exemple d'application; Revue de l'Institut français du Pétrole, vol. 12, 1985.

Reflectance of solid altered bitumen in the Lower and Middle Paleozoic sequence; Geol. Assoc. Can.-Mineral. Assoc. Can., Program with Abstracts, vol. 10, p. A26, 1985.

Des travaux, commandités par la DGE, portant sur le titre ci-haut posèrent plusieurs problèmes. Des travaux pour mieux définir le PR des M.O.D. ont donc été entrepris (publications et communications ci-haut) en vue de mieux redéfinir les relations entre l'évolution thermique des kérogènes et la géologie structurale des Appalaches du Québec.

142. CHAN, C., Ontario Geol. Surv.:
Semi-automated method for determination of selenium in geological materials using flow injection analysis technique, 1984-85.

Flow injection analysis is applied to an automated sample introduction system coupled with hydride generation for the determination of Se in geological materials by atomic absorption. 1,10-phenanthroline is used to control interferences from Cu and Ni. The detection limit is 5 ppb in rock. Se values on forty international geological reference samples are reported.

143. HALDEN, N.M., Univ. Manitoba (Earth Sciences):
Geochemical and structural constraints on the evolution of the Churchill-Superior Suture-zone, Split Lake, Manitoba, 1984-86.

To characterize, within a time relative intrusive and structural framework, igneous activity at an active Archaean-Proterozoic margin.

144. LACHANCE, G.R., Geol. Surv. Can.:
Development of methods for the analysis of geological materials, 1969-.

145. STEGER, H.F., BOWMAN, W.S., SUTARNO, R., SABOURIN, R.G., EMR (CANMET):
Canadian Certified Reference Materials Project (CCRMP), 1978-.

During 1984-85, the certification of two gold ores CH-1 and CH-2 was completed. A uranium ore RL-1 is being prepared as well as two organic matrix reference materials for radionuclides. A material RGU-1 was prepared on behalf of I.A.E.A., the International Atomic Energy Agency.

146. VANDER VOET, A., DOHERTY, W., Ontario Geol. Surv.:
Evaluation of ICP/MS to determination of trace elements in geological materials, 1985.

To establish routine and semi-routine methods of determination of selected trace elements in geological materials, particularly elements difficult to determine at low concentrations by conventional methods, e.g. REE, Ge, Tl, Ta, precious metals.

147. VANDER VOET, A., DOHERTY, W., Ontario Geol. Surv.:
Evaluation of ICP/MS to the determination of isotope ratios for elements in geological materials, 1985.

EXPLORATION, ORGANIC/ APPLIQUÉE, ORGANIQUE

148. BRAND, U., ATKINSON, D., Brock Univ. (Geological Sciences):
Metals and hydrocarbon exploration carbonate geochemistry, Michigan Basin, Arctic Islands, 1982-; M.Sc. thesis (Atkinson).

See:

Diagenetic evaluation and chemical fluid vectors of the Silurian formation, Michigan Basin; Ontario Petrol. Instit., Technical Vol. 1984.

149. DUNN, C.E., Saskatchewan Geol. Surv.:
Biogeochemical methods of exploration for minerals, 1979-.

See:

Biogeochemical methods and surveys, southern La Ronge Belt; Saskatchewan Geol. Surv., Misc. Rept. 84-4, p. 95-103, 1984.

150. JONASSON, I.R., Geol. Surv. Can.:
Environmental geochemistry, 1974-.

See:

A general genetic model for stratiform barite deposits of the Selwyn Basin, Yukon Territory and District of Mackenzie; Geol. Surv. Can., Paper 85-1A, p. 651-660, 1985.

The distribution of gold in the Tea Barite deposit, Yukon Territory; ibid., p. 661-667, 1985.

151. McCONNELL, J.W., BATTERSON, M., Newfoundland Dept. Mines and Energy:
(1) Study of geochemical dispersion patterns in the surficial environment related to a Zr-Y-Nb-REE-Be mineralized peralkaline granite, 1983-85. (2) Study of effectiveness of organic lake sediment geochemistry for gold exploration, 1984-.

152. SNOWDON, L.R., Geol. Surv. Can.:
Hydrocarbon geochemistry of Arctic Archipelago and Canadian East Coast offshore, 1976-.

153. SNOWDON, L.R., Geol. Surv. Can.:
Development of extraction, identification and correlation systems for organic compounds from sedimentary rocks and crude oils, 1973-.

154. SNOWDON, L.R., Geol. Surv. Can.:
Hydrocarbon geochemistry of northern Interior Plains and Beaufort Sea, 1976-.

155. SNOWDON, L.R., Geol. Surv. Can.:
Oil shale resources of Canada, 1982-.

156. WELHAN, J.A., Memorial Univ. (Earth Sciences):
Isotopic studies of mid-ocean ridge hydrothermal fluids and gases, 1984-.

See:

Hydrothermal gases at 11°N and 13°N on the EPR; Trans. Am. Geophys. Union, vol. 65, p. 973, 1984.

Helium isotopes and mantle methane in Icelandic geothermal fluids; ibid., p. 1152, 1984.

On going collaboration with United States deep submersible sampling programs; developing collaborative program with Canadian researchers working on the Juan de Fuca/Endeavour/Explorer ridges, West coast.

EXPLORATION, NON-ORGANIC/ APPLIQUÉE, NON-ORGANIQUE

157. BAKER, C.L., STEELE, K.G., Ontario Geol. Surv.:
Reconnaissance till sampling program in the Matheson area, Ontario, 1984-88.

See:

Location of gold grains in sonic drill core samples, Matheson Area; Ontario Geol. Surv., Map P.2736, 1984.

To provide a regional mineral exploration oriented geoscientific database. Results of the 1984 programs are to be released in the spring of 1985.

158. BEAUDOIN, A., PERRAULT, G., Ecole Polytechnique (Génie minéral):
Géochimie de la minéralisation aurifère de la mine Dest'Or, Québec, 1983-85; M.Sc. A. (Beaudoin).

See:

Distribution of gold around the Dest'Or orebody, Noranda district, Abitibi, Quebec; 11th Internat. Geochemical Exploration Symp., Programme and Abstracts, p. 39, 1985.

Ces travaux avaient pour objet d'établir la zonation géochimique de certains éléments autour du gîte Dest'Or. On a nettement montré que le gîte est enveloppé d'une auréole d'or (40 ppb Au) d'une portée d'environ 100 m. As, Sb, W, CO_2 sont aussi anomaliques autour du gîte.

159. BOURGET, A., PERRAULT, G., Ecole Polytechnique (Génie minéral):
Géochimie de la minéralisation aurifère de la mine Kiena, Val d'Or, Québec, 1984-85; M.Sc. A. (Bourget).

Etude de la dispersion de l'or, l'arsenic, l'antimoine et le tungstène autour du gîte S-25 de la mine Kiena. Etude du bruit de fonds régional pour ces éléments dans la formation encaissante. (Jacola).

160. BOYLE, D.R., Geol. Surv. Can.:
Regional geochemistry, Newfoundland and Labrador, 1976-.

161. CHURCH, B.N., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Geology, lithogeochemistry and mineralization in the buck Creek basin, British Columbia, 1970-85.

See:

Lithogeochemistry at the Equity Silver Mine; Western Miner, vol. 57, no. 4, p. 50-54, 1984.

Update on the geology and mineralization in the Buck Creek area; the Equity Silver Mine revisited; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 174-187, 1985.

Maps at drafting stage; Geology of the Buck Creek Tertiary outlier (coloured, 1:100 000); Silver and arsenic lithogeochemistry of the Buck Creek Basin (1:100 000).

162. COUTURE, B., DARLING, R., Ecole Polytechnique (Génie minéral):
Petrography and geochemistry of the hydrothermal alteration pipe, Decoeur-garon property, Rouyn, Québec, 1982-85; M.Sc. A. (Couture).

163. FOSCOLOS, A.E., Geol. Surv. Can.:
Clay and clay minerals investigation, 1968-.

164. GAREAU, M., SINCLAIR, A.J., Univ. British Columbia (Geological Sciences):
A lithogeochemical study of the Golden Sunlight deposit, Montana, 1984-; M.Sc. thesis (Gareau).

Drill sample pulps have been selected as a basis for studying primary chemical dispersion haloes characterizing the Golden Sunlight deposit. Some emphasis will be placed on Cu associations and distribution because this element is detrimental to the milling process.

165. HORNBROOK, E.H.W., Geol. Surv. Can.:
National geochemical reconnaissance, 1975-.

166. JONASSON, I.R., Geol. Surv. Can.:
Trace elements in sulphides, 1974-.

167. MAURICE, Y.T., Geol. Surv. Can.:
Regional geochemistry, northern Canadian Shield, 1976-.

168. MAURICE, Y.T., Geol. Surv. Can.:
Geochemical exploration technology in ultrabasic complexes, 1983-.

169. MOSSMAN, D.J., Mount Allison Univ. (Geology):
Nature, origin and prediction of geochemical and associated techniques of salt solution collapse phenomena in bedded potash deposits, 1982-.

170. MOSSMAN, D.J., Mount Allison Univ. (Geology):
Aspects of the geochemistry of the Witwatersrand-type gold deposits, and the possible influence of ancient prokaryotic communities of gold concentrations, 1983-.

171. MUMIN, H., SCOTT, S.D., Univ. Toronto (Geology):
Alteration beneath the Lyon Lake massive sulfide deposit, Northwestern Ontario, 1984.

A breccia zone at Lyon Lake shows progressive changes in alteration mineralogy and whole-rock composition leading to recognition of sites of hydrothermal discharge on the Archean seafloor.

172. PERRAULT, G., TANER, M.F., Ecole Polytechnique (Génie minéral):
Etude de la dispersion de l'or autour des gîtes aurifères région de Lamaque-New Pascalis, Val d'Or, Québec, 1983-85.

Plusieurs roches du secteur de Val d'Or contiennent beaucoup d'or: la granodiorite de Bourlamaque, les pyroclastites de la formation de Val d'Or. Il est possible que les gîtes d'or soient créés par une remobilisation de cet or.

173. RAY, G.E., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Coquihalla gold belt project, British Columbia, 1981-85.

See:

Element zoning associated with gold mineralization at Carolin Mine; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 139-149, 1985.

Specific auriferous horizons at the Carolin gold Mine, in southwestern British Columbia, have complex and variable major and trace element zoning patterns in which the gold is sometimes associated with anomalous amounts of Ag, Mo, As or Sb. The deposit is surrounded by a sodium enriched albite-bearing envelope that extends at least 60 metres beyond the mineralization.

174. ROGERS, P.J., Nova Scotia Dept. Mines and Energy:
Follow-up geochemistry, 1984-.

175. SCOTT, B.P., Saskatchewan Geol. Surv.:
Gold lithogeochemistry, Sulphide Lake area, Saskatchewan, 1984.

To support a geochemical multimedia program. Preliminary results confirmed that oxide coatings along joints were enriched with Au and As, relative to adjacent rock samples.

176. TANER, M.F., PERRAULT, G., Ecole Polytechnique (Génie minéral):
Distribution de l'or autour du gîte Sigma-2, région de Val d'Or, Québec, 1984-85.

L'objet de cette recherche est de suivre l'évolution de l'or avec l'évolution de magmatisme (gabbro jusqu'à granophyre), tout en établissant la qualité pétrographique nécessaire.

177. TROOP, D.G., SCOTT, S.D., Univ. Toronto (Geology):
Geology of the Flat Landing Brook deposit, New Brunswick, and trace element geochemistry of an associated iron formation, 1984; M.Sc. thesis (Troop).

Stratigraphy at Flat Landing Brook is correlative to that at the much larger Brunswick No. 12 deposit. Iron formation close to and away from ore can be discriminated on the basis of trace element geochemistry.

178. VALIQUETTE, G., Ecole Polytechnique (Génie minéral):
Corrélation des Bentonites de la Formation Shiphead en Gaspésie, Québec, 1985-87; thèse de maîtrise.

Des lits de bentonites, situées à la base de la formation Shiphead ont été observés à divers endroits en Gaspésie. Des unités lithologiques semblables servent d'horizons repères pour la minéralisation à Gaspé Copper. L'objectif est d'établir des critères de corrélation minéralogique et géochimique entre ces couches de bentonite afin de définir un nouveau métallotecte pour la recherche des gisements de porphyry copper en Gaspésie.

179. WAITZENEGGER, B., DARLING, R., Ecole Polytechnique (Génie minéral):
Geochemistry of wallrock alteration, Ferderber ore zone, Belmoral Mine, Val d'Or, Québec, 1984-86; M.Sc. A. (Waitzenegger).

180. WARREN, H.V., HORSKY, S.J., Univ. British Columbia (Geological Sciences):
The use of thallium as a pathfinding element, 1985-87.

See:

Biogeochemistry indicates mineral anomalies along southern extensions of the Pinchi Fault; Western Miner, vol. 57, no. 6, p. 31-34, 1984.

GENERAL/GÉNÉRALITÉS

181. BAADSGAARD, H., Univ. Alberta (Geology):
Partition of bromine between halite and sylvite in saturated NaCl-solutions, 1984-85.

182. BALLANTYNE, S.B., Geol. Surv. Can.:
Regional geochemistry – southern Cordillera, 1979-.

183. BARAGAR, W.R.A., Geol. Surv. Can.:
Stratigraphy and geochemistry of the volcanic rocks of the Circum-Ungava Belt, District of Keewatin, 1978-.

See:

Pillow formation and layered flows in the Circum-Superior Belt of eastern Hudson Bay; Can. J. Earth Sci., vol. 21, no. 7, p. 781-792, 1984.

Paleomagnetism of the komatiitic basalts of the Ottawa Islands, N.W.T.; Can. J. Earth Sci., vol. 23, no. 4, p. 553-566, 1985.

184. BERGERON, M., SHAW, D.M., INRS-Géoressources, McMaster Univ. (Geology):
The behaviour of boron in the oceanic lithosphere, 1981-85.

See:

Boron fixation in altered rocks; Geol. Assoc. Can.-Mineral. Assoc. Can., Program with Abstracts, vol. 10, p. A3, 1985.

Prompt-gamma neutron activation analysis was used to study the distribution of boron in the oceanic crust and ophiolites. Low temperature alteration of basalts results in a removal of boron from seawater. The B contents of basalts altered to the greenschist facies are similar to the ones of fresh basalts.

185. BOYLE, D.R., Geol. Surv. Can.:
Groundwater geochemistry in mineral and hydrocarbon exploration, 1983-.

186. BOYLE, R.W., Geol. Surv. Can.:
Geochemistry of metallogenesis and primary halos, 1973-.

187. BRAND, U., MORRISON, J.O., HINSPERGER, S., WASSENAAR, L., Brock Univ. (Geological Sciences):
Carbonate geochemistry and diagenesis, 1980-86; M.Sc. theses (Morrison, Hinsperger, Wassenaar).

See:

Quantification of the aragonite-calcite transformation process; 1985 Book of Abstracts, SEPM Midyear Meeting, Golden, Col. Aug. 11-14, 1985.

Pyritization: an example of high-Mg calcite alteration; Geol. Assoc. Can.-Mineral. Assoc. Can., Program with Abstracts, vol. 10, p. A40, 1985.

188. BRAND, U., TERASMAE, J., Brock Univ. (Geological Sciences):
Geochemistry of Paleozoic rocks and tills of southern Ontario, 1982-84.

See:

Source rock geochemistry of Pleistocene tills of southern Ontario; Ontario Geol. Surv., Misc. Paper 121, p. 65-71, 1984.

189. CAMERON, E.M., Geol. Surv. Can.:
Isotopic geochemistry, Precambrian mineralized basins, District of Mackenzie and Ontario, 1980-.

190. DYCK, W., Geol. Surv. Can.:
Disequilibrium in the uranium series, 1978-.

See:

Quantitative determination of ^{210}Po in geochemical samples; Geol. Surv. Can., Paper 84-1B, p. 41-46, 1984.

191. ELLWOOD, D.J., Geol. Surv. Can.:
Geochemical information systems, 1975-.

192. GOFF, S.P., GODFREY, J.D., Alberta Research Council (Geol. Surv.):
Geochemical-petrological study of the Canadian Shield, northeastern Alberta, 1981-85.

193. GOODFELLOW, W.D., Geol. Surv. Can.:
Regional geochemistry, Yukon Territory, 1977-.

194. GOODFELLOW, W.D., Geol. Surv. Can.:
Geochemistry of mineral occurrences and their host rocks in the Northern Cordillera, 1979-.

195. JAMIESON, H., LYDON, J.W., Queen's Univ. (Geological Sciences), Geol. Surv. Can.:
Geochemistry of a fossil ore-solution reservoir in Cyprus.

196. LERBEKMO, J.F., ST. LOUIS, R.M., Univ. Alberta (Geology):
The iridium anomaly at the Cretaceous-Tertiary boundary in Alberta, 1983-85.

The Cretaceous-Tertiary boundary iridium anomaly has been detected in the Red Deer Valley and in the coal mining area at Coal Valley. Further searches are being carried out in cores from Red Deer Valley area and farther southwest.

197. MAURICE, Y.T., Geol. Surv. Can.:
Lithogeochemical studies, Gaspé Peninsula, Québec, 1984-.

198. MELLINGER, M., SMITH, J.W.J., Saskatchewan Research Council:
Geochemistry and data analysis, 1980-.

See:

REE analysis using ICP: a preliminary investigation; Saskatchewan Research Council Publ. S-801-1-E-84, 1984.

Establish an effective methodology for lithogeochemical exploration and the interpretation of lithogeochemical data, using an integrated approach and multivariate data analysis. Field of application shifted this year to gold metallogenesis and geochemistry in Northern Saskatchewan.

199. NALDRETT, A.J., EVENSEN, N.M., BHAGAVATHULA, R., Univ. Toronto (Geology):
Crustal contamination and its role in the genesis of Sudbury Ni Cu ores, Ontario, 1982-85.

See:

The sublayer of the Sudbury Igneous Complex; Ontario Geol. Surv., Sp. vol. No. 1, 1985.

Crustal contamination in the sublayer, Sudbury Igneous Complex: a combined trace element and strontium isotope study; Ontario Geol. Surv., Misc. Paper 122, p. 128-146, 1984.

The nickel-copper sulfides associated with the Sudbury Igneous Complex are economically the most important deposits of this type in the world. The field and mineralogical evidences at Sudbury point towards an extensive interaction of magmas with silicic crustal rocks. Silica depresses the solubility of sulfur in mafic magmas. Therefore, contamination of magmas by crustal rocks has a dominant role in causing the

precipitation of sulfide ores. The present research envisages a comprehensive and integrated study of major, trace element (including the rare earths), and strontium and neodymium isotopic characters of various units of the Sudbury Igneous Complex to document the nature and degree of crustal contamination. Emphasis has been placed on the Sublayer, a separate series of intrusions which exclusively host the nickel-copper ores and occur along the base of the Main Mass of the Sudbury Igneous Complex.

The major and trace element abundances and isotopic compositions suggest that extensive crustal contamination, principally by upper crustal components, occurred at Sudbury. On the basis of combined treatment of the data, a model involving the introduction of successive waves of sublayer magma from below which interacted with their distinctly different environments, has been proposed for the emplacement of the Sublayer. This model has important implications for the origin and character of the associated nickel-copper ores.

200. ROMANIUK, A.S., NAIDU, H.G., BONNEL, G., JANKE, L.C., EMR (CANMET):
Quality assessment of Canadian commercial coals, 1982-84.

201. SMITH, P.K., Nova Scotia Dept. Mines and Energy:
Cochrane Hill gold deposit, Nova Scotia, 1982-85.

See:

Geology and lithogeochemistry of the Cochrane Hill gold deposit – an indication of metalliferous source beds; Nova Scotia Dept. Mines and Energy, Rept. Activities, p. 203-214, 1984.

This was the final year in the evaluation of the Cochrane Hill gold deposit. This turbidite hosted amphibolite grade deposit is regarded as granite related epigenetic vein mineralization.

202. SUSAK, N.J., PAN PUJING, Univ. New Brunswick (Geology):
Spectra and stability constants of cobalt chloride complexes in solutions up to 5 m NaCl and 350°C, 1982-; Ph.D. thesis (Pan Pujing).

Coordination chemistry and stability constants of cobalt (II) complexes in ore-forming solutions are being investigated spectrophotometrically – to provide thermodynamic data to evaluate cobalt transport in ore-forming processes and to access the importance of coordination changes and bonding mechanisms in the formation of base metal sulfide deposits.

203. THORPE, R.I., Geol. Surv. Can.:
Lead isotopic studies on genesis of ore deposits, 1978-.

See:

Use of the Superior Province lead isotope framework in interpreting mineralization stages in the Chibougamau District; CIM Sp. Vol. 34, p. 496-516, 1984.

204. WARREN, H.V., HORSKY, S.J., Univ. British Columbia (Geological Sciences):
Bee pollen as an accessory exploration tool, 1979-.

See:

Pollen: using bees to collect biogeochemical data; The Northern Miner, October 4, p. B3, B4, 1984.

GEOCHRONOLOGY/GÉOCHRONOLOGIE

205. ARCHIBALD, D.A., FARRAR, E., Queen's Univ. (Geological Sciences):
Tectonothermal history of the southern Kootenay Arc and Purcell Anticlinorium, southeastern British Columbia, 1976-.

See:

Geochronology and tectonic implications of magmatism and metamorphism, southern Kootenay Arc and neighbouring regions, southeastern British Columbia. Part II: Mid-Cretaceous to Eocene; Can. J. Earth Sci., vol. 21, p. 567-583, 1984.

$^{40}Ar/^{39}Ar$ and fission track studies of mid-Cretaceous plutons (e.g. White Creek batholith) are in progress. In addition, the Precambrian thermal history of rocks in the Purcell Anticlinorium is being investigated in an $^{40}Ar/^{39}Ar$ study of the Hellroaring Creek area and Moyie (and younger) mafic intrusions.

206. ARCHIBALD, D.A., FARRAR, E., Queen's Univ. (Geological Sciences):
An $^{40}Ar/^{39}Ar$ study of the Kapuskasing Structural Zone, northern Ontario, 1979-86.

An isotopic study of the sheared eastern margin of the KSZ is in progress. A regional-scale, isotopic transect of the KSZ and neighbouring regions has been initiated as part of LITHOPROBE.

207. ARCHIBALD, D.A., FARRAR, E., Queen's Univ. (Geological Sciences):
An isotopic study of granitoid rocks associated with W-skarn, Selwyn Mountains, Yukon Territory and Northwest Territories, 1985-.

Most micas and amphiboles yield K-Ar dates of ~95 Ma, however, a few exceptions have been found. In this preliminary investigation, coexisting K-feldspar and apatite will be used ($^{40}Ar/^{39}Ar$ and fission track) to study the low temperature thermal history of the plutons.

208. ARCHIBALD, D.A., FARRAR, E., CARMICHAEL, D.M., JOURNEAY, J.M., Queen's Univ. (Geological Sciences):
An isotopic study of the west flank of Frenchman's Cap dome, southeastern British Columbia, 1983-86.

Whereas all K-Ar mica dates fall between 45 and 55 Ma, amphiboles yield conventional dates as great as 120 Ma. $^{40}Ar/^{39}Ar$ experiments reveal a component of excess Ar and a complex, pre-Eocene, thermal history.

209. ARCHIBALD, D.A., FARRAR, E., CLARK, A.H., SEAL, R., Queen's Univ. (Geological Sciences), Univ. Michigan (Geological Sciences):
A K-Ar and $^{40}Ar/^{39}Ar$ study of the Lake George antimony deposit, southern New Brunswick, 1983-86; M.Sc. thesis (Seal).

K-Ar dates suggest a Late Silurian age for mineralization. $^{40}Ar/^{39}Ar$ step-heating experiments are in progress. This project is being expanded to include other polymetallic deposits in New Brunswick.

210. ARCHIBALD, D.A., FARRAR, E., HELMSTAEDT, H., HALL, D., Queen's Univ. (Geological Sciences):
An $^{40}Ar/^{39}Ar$ investigation of the age of kimberlites and the thermal history of their xenoliths, southeastern British Columbia, 1985-.

211. ARCHIBALD, D.A., FARRAR, E., IRVING, E., WOODSWORTH, G.J., Queen's Univ. (Geological Sciences), Geol. Surv. Can.:
$^{40}Ar/^{39}Ar$ thermal and paleomagnetic studies of the Smith Island gabbro, British Columbia, 1985-86.

This pluton has been sampled extensively for paleomagnetic studies. $^{40}Ar/^{39}Ar$ step-heating experiments on amphibole should yield the age of emplacement and, the time and magnitude of any later thermal disturbance.

212. ARCHIBALD, D.A., FARRAR, E., MOUNTJOY, E., Queen's Univ. (Geological Sciences), McGill Univ. (Geology):
A K-Ar and $^{40}Ar/^{39}Ar$ study of metamorphic rocks near the Purcell thrust, southeastern British Columbia, 1983-86.

Biotite-muscovite pairs show a marked reversal of the normal discordance of K-Ar dates. $^{40}Ar/^{39}Ar$ step-heating experiments will be done in order to assess the tectonothermal history of these samples.

213. BAADSGAARD, H., Univ. Alberta (Geology):
Secondary alteration history of the Prairie Evaporite potassium salt horizons, 1980-.

214. BAADSGAARD, H., BIBICOVA, E., FOLINSBEE, R.E., Univ. Alberta (Geology):
Neodymium-samarium dating of Archean boulders from a diatreme in the Con Mine, Yellowknife, Northwest Territories, 1984.

Four whole rocks and an apatite mineral separate from tonalitic boulders have been dated by the Nd-Sm method and the dates confirm an early Archean (>3300 m.y.) age for the tonalite gneisses.

215. BAADSGAARD, H., LERBEKMO, J.F., McDOUGALL, I., Univ. Alberta (Geology), ANU-RJES-Canberra:
Multi-method time-scale calibration of the Cretaceous-Tertiary boundary in western North America, 1982-85.

216. BAADSGAARD, H., MARAIS, J., Univ. Alberta (Geology), O O'Kiep Copper Co.:
Geochronology of the Namaqualand area near O O'Kiep, South Africa, 1983-85.

A survey of Pb-Pb in granites has just been completed.

217. BAADSGAARD, H., YANAGI, T., STELCK, C.R., Univ. Alberta (Geology):
Time-scale calibration of the middle Albian using a bentonitic tuff near Hudson's Hope, British Columbia, 1984-85.

Paper in preparation.

218. BERGER, G.W., HUNTLEY, D.J., STIPP, J.J., Simon Fraser Univ. (Physics):
Thermoluminescence studies on a ^{14}C-dated marine core, 1984-.

See:

Can. J. Earth Sci., vol. 21, no. 10, p. 1143-1150, 1984.

219. EASTON, R.M., CORFU, F., KROGH, T.E., DAVIS, D.W., Ontario Geol. Surv., Royal Ontario Mus.:
Isotopic age compilation map of Ontario, 1983-.

See:

Distribution of chronologic terranes in the Grenville Province, eastern North America; Geol. Assoc. Can.-Mineral. Assoc. Can., Abstracts with Programs, vol. 10, p. A15, 1985.

To compile all published geochronologic data for the Province of Ontario older than 10 million years, correct data to 1977 IUGS constants, establish a computerized data base for the data, and publish the compilation at 1:1 000 000 for the Province. Data collection complete, data base complete, maps and listing of data base will be available summer 1985. Project will update data base and maps at regular intervals.

220. FARRAR, E., ARCHIBALD, D.A., CLARK, A.H., Queen's Univ. (Geological Sciences):
The timing of tungsten and tin mineralization, Korea, 1979-86.

An $^{40}Ar/^{39}Ar$ and K-Ar study of the Sang Dong and Oklsang camps is in progress. K-Ar dates range from 80 to 1850 Ma and $^{40}Ar/^{39}Ar$ age spectra suggest complex thermal histories for these areas.

221. FRANCE, L., FARRAR, E., CLARK, A.H., Queen's Univ. (Geological Sciences):
A K-Ar study to establish the timing of Neogene volcanism in southernmost Peru, 1983-85; M.Sc. thesis (France).

See:

Cenozoic polyphase landforms and the tectonic evolution of the Cordillera Occidental, southernmost Peru; Bull. Geol. Soc. Amer., vol. 95, pp. 1318-1332, 1984.

222. HANES, J.A., ARCHIBALD, D.A., Queen's Univ. (Geological Sciences):
$^{40}Ar/^{39}Ar$ geochronology of diabase dyke swarms in the Wawa-Kapuskasing-Abitibi transect of the Canadian Shield, 1984-.

223. HANES, J.A., CLARK, S.J., ARCHIBALD, D.A., Queen's Univ. (Geological Sciences):
Uplift and cooling history of the Canadian Grenville Province by $^{40}Ar/^{39}Ar$ thermochronometry, 1983-; M.Sc. thesis (Clark).

224. HANES, J.A., HODGSON, C.J., LING WONG, ARCHIBALD, D.A., Queen's Univ. (Geological Sciences):
$^{40}Ar/^{39}Ar$ geochronology of gold mineralization in the Archean Abitibi greenstone belt, Ontario, 1984-; M.Sc. thesis (Ling Wong).

225. HANES, J.A., LOPEZ-MARTINEZ, M., YORK, D., HAU, C.M., Queen's Univ. (Geological Sciences), Univ. Toronto (Geophysics):
Geochronology and petrology of Archean mafic and ultramafic rocks, 1983-.

226. HEINRICH, S.M., FARRAR, E., CLARK, A.H., Queen's Univ. (Geological Sciences):
A geochronological study of the tectonothermal evolution of the Zongo belt, Bolivian Andes, 1984-86; M.Sc. thesis (Heinrich).

227. HOEVE, J., ARMSTRONG, R.L., QUIRT, D., Saskatchewan Research Council (Resources), Univ. British Columbia (Geological Sciences):
Rb/Sr-dating of diabase dikes in the Athabasca basin, 1985-.

Diabase dikes in the Athabasca basin were intruded during the interval 1350-1000 Ma, which is coeval with the overall episode of uranium mineralization. Mineralization, however, is distinctly episodic with a first pulse at 1350-1250 Ma and a second at 1100-1050 Ma. An attempt will be made by means of Rb/Sr-dating to resolve possible pulses of diabase magmatic activity that correlate with pulses of mineral formation.

228. HUNTLEY, D.J., Simon Fraser Univ. (Phvsics):
Thermoluminescence dating of sediments.

A method is to be described which allows the determination of radiation doses received by mineral grains since their last exposure to sunlight, even if this exposure was of relatively short duration or through a poorly transmitting medium. Tests of the method were made on a variety of zero-age sediments and in most cases gave values <5 grays, some being <1 gray. This zero-point "error" would lead to an error in the age determination of an old sample of typically 2000 years, and in one case <300 years. The method should therefore be useful for dating samples older than ~20 000 years and, in some cases, younger ones.

229. HUNTLEY, D.J., BERGER, G.W., Simon Fraser Univ. (Physics):
Thermoluminescence dating of volcanic ash, 1983-85.

See:

A thermoluminescence date for the Old Crow Tephra from Alaska; Geol. Soc. Amer., Cordilleran Section, Abstracts with Programs, vol. 17, no. 6, p. 341, 1985.

Recently, Berger has suggested that the clear glass component (preferably <10 μm) of airfall tephra can be used as a thermoluminescence (TL) clock, and thus provide a new method for the direct dating of tephra deposits. However, in many samples he observed an unstable TL component (anomalous fading) which led to severe underestimation of the ages. This he attributed to the presence of feldspars. To circumvent this we have used heavy liquids to isolate the glass by removing the denser minerals. We have tried this separation at a density of 2.50 $g.cm^{-3}$ on both 4-10 μm and 88-150 μm size fractions. Our first sample is of the wide-spread late Pleistocene Old Crow tephra, collected near Fairbanks.

The results show that the observed anomalous fading TL component appears to have been successfully eliminated. From additive dose TL experiments on both size fractions we have obtained lower and upper age limits of ca 130 ka and ca 220 ka with a probable age of ca 150 ka. This is the first such direct measurement of a TL deposition age for physically separated airfall glass. The result is consistent with independent estimates of the age of >60 ka (C-14), >75 ka (U-series) and <120 ka (fission-track on glass). In addition it is consistent with stratigraphic relationships which point to placement just prior to a warming event.

230. HUNTLEY, D.J., GODFREY-SMITH, D.I., Simon Fraser Univ. (Physics):
Optical dating of sediments, 1984-; Ph.D. thesis (Godfrey-Smith).

See:

Nature, vol. 313, p. 105, 1985.

A new method for dating sediments is proposed in which the event being dated is the last exposure to sunlight. An argon ion laser is used to excite electrons from thermally-stable light-sensitive traps and the subsequent luminescence used as a measure of the past radiation dose. Two sample sequences spanning the periods 0-700 ka and 0-6 ka (ka = 1000 years) show steadily increasing luminescence with age. An age of 62 ± 8 ka is obtained for a silt radiocarbon dated at 58.8 ± 0.3 ka. Some problems were found with two much younger samples.

231. KARROW, P.F., FRITZ, P., Univ. Waterloo (Earth Sciences):
Radiocarbon dating errors, 1981-.

See:

Corry bog, Pennsylvania: a case study of the radiocarbon dating of marl; Quaternary Res., vol. 21, p. 326-336, 1984.

Radiocarbon dating is carried out on many kinds of material which produce dates of varying reliability. We are exploring the reliability of various materials and assessing the value of comparing dates on different materials.

232. MARMONT, S., Ontario Geol. Surv.:
Dating of Archean gold deposits in Ontario, 1983-.

See:

Age dating of gold mineralization in the Abitibi belt, northeastern Ontario; Ontario Geol. Surv., Misc. Paper 119, p. 242-246, 1984.

233. MATHEWS, W.H., ROUSE, G.E., Univ. British Columbia (Geological Sciences):
The Plateau basalts of the southern interior of British Columbia, 1983-.

See:

The Gang Ranch-Big Bar area, south-central British Columbia: stratigraphy, geochronology, and palynology of the Tertiary beds and their relationship to the Fraser Fault; Can. J. Earth Sci., vol. 21, no. 10, p. 1132-1144, 1984.

To establish regional pattern of age and development; associated geomorphology, of the 'Plateau Basalts'.

234. PADGHAM, W.A., BROPHY, J.A., ELLIS, C.E., GIBBINS, W.A., BOWERING, S.A., Indian and Northern Affairs Canada (Geol. Div.), Washington Univ., St. Louis:
Geochronology of the Slave Structural Province, 1984-.

Improve and elaborate our knowledge of the structural tectonics and depositional history of the Slave Province. Mainly around Yellowknife (85I-3) and Hepburn Island (76M) areas.

235. van BREEMEN, O., Geol. Surv. Can.:
Isotopic age determinations and radiogenic trace element studies of rocks and minerals, 1983-.

GEOLOGICAL COMPUTER APPLICATIONS/APPLICATIONS DE L'INFORMATIQUE À LA GÉOLOGIQUE

236. CHUNG, C.F., Geol. Surv. Can.:
Development of computer-based statistical techniques applicable to regional geological and mineral deposit data, 1975-.

See:

Notes on optimal composite sample size selection; Geol. Surv. Can., Paper 84-1B, p. 351-354, 1984.

237. DUNBAR, W.S., GILL, R., Univ. British Columbia (Geological Sciences):
Development of computer based advisory system for engineering geophysics, 1984-; M.Sc. thesis (Gill).

To develop a computer based advisory (expert) system to assist civil engineers in deciding which geophysical method, if any, can be used at a site. Some aspects of the development of the system are complete.

238. GRIEVE, D.A., KILBY, W.E., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Structural modelling of Flathead Ridge in the Southern Dominion Coal Block (Parcel 82), southeastern British Columbia, 1985.

See:

Structural modelling of parts of the Northern Dominion Coal Block (Parcel 73), southeastern British Columbia; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 53-65, 1985.

A computer model of the Flathead Ridge deposit will be constructed in order to calculate potential coal resources, utilising existing geological mapping and drill information supplemented by a short field survey of the property.

239. KILBY, W.E., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Digital coal-deposit modelling, 1983-.

See:

Structural modelling of parts of the Northern Dominion coal block (Parcel 73), southeastern British Columbia (82G/10); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 53-63, 1985.

Construct digital deposit models of various coal deposits in British Columbia. Test and perfect various techniques of analysis.

240. LYTTLE, N.A., DEMONT, G., BATES, J., Nova Scotia Dept. Mines and Energy:
Drillhole data base, 1982-.

Information on drillholes in the data base is compiled from non-confidential assessment reports available up to and including 1980.

241. LYTTLE, N.A., GILLESPIE-WOOD, J., WILKINSON, D., FROTTEN, G., NEWMAN, J., Nova Scotia Dept. Mines and Energy:
GEOSCAN – Nova Scotia geoscience bibliographic information data base, 1977-.

242. LYTTLE, N.A., PONSFORD, M., DEMONT, G., Nova Scotia Dept. Mines and Energy:
Metallic and industrial mineral occurrences data bases, 1984-.

243. NICHOLS, B., Geol. Surv. Can.:
Digital single-channel seismic data acquisition systems, 1984-.

244. TESKEY, D.J., Geol. Surv. Can.:
Development of regional geophysical data processing and interpretation methods, 1982-.

See:

Computer programs for production of shaded relief and stereo shaded relief maps; Geol. Surv. Can., Paper 84-1B, p. 375-389, 1984.

245. WILCOX, A.F., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
MINFILE, 1977-.

See:

MINFILE – past, present and future; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 405-409, 1985.

MINFILE is a continuing program of the British Columbia Ministry of Energy, Mines and Petroleum Resources, which is concerned with the development of a computerized filing system for mineral deposit information. The database contains approximately 8800 occurrences at the present time. MINFILE is currently undergoing a redesign to include more geology and to upgrade the computing facility of the file.

GEOMATHEMATICS/MATHEMATIQUE DE LA TERRE

246. AGTERBERG, F.P., Geol. Surv. Can.:
Probability models for estimating mineral potential and geoprocessing, 1969-.

247. AGTERBERG, F.P., Geol. Surv. Can.:
Mineral and energy resource evaluation; probabilistic methods, 1976-.

248. BONHAM-CARTER, G.F., Geol. Surv. Can.:
Geomathematical applications in the integration of geoscience map data, 1983-.

249. CHURCH, B.N., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Computer applications in the geosciences, 1984-85.

See:

A computer program for the estimation of oxide composition from modal analyses of plutonic rocks from the Buck Creek area; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 189-191, 1985.

250. DAVID, M., MARCOTTE, D., Ecole Polytechnique (Génie minéral):
Le Krigeage bigaussien, 1984.

La méthode de Krigeage bigaussien permet un calcul rapide de la distribution conditionnelle à l'intérieur d'un bloc. Elle permet également une meilleure estimation que le krigeage dans le cas de distribution normale.

251. DAVID, M., MARCOTTE, D., Ecole Polytechnique (Génie minéral):
Étude du biais conditionnel dans le Krigeage, 1984.

See:

Conditional lias in Kriging and a suggested connection; in Geostatistic for Natural Resources Characterization, part 1, p. 217-230, 1984, D. Reidel Publishing Co.

On a proposé une nouvelle solution au problème longtemps négligé du biais conditionnel dans le Krigeage. On a testé la méthode avec succès sur des distributions normales, lognormale et même quelconque avec des forts coefficients de variation.

252. DIMITRAKOPOULOS, R., Univ. Alberta (Geology):
Conditional simulation and kriging as an aid to oil-sands development: an application in part of the Athabasca deposit, 1982-85; M.Sc. thesis.

253. STANLEY, C.R., SINCLAIR, A.J., Univ. British Columbia (Geological Sciences):
Stochastic simulation of regression techniques in anomaly recognition of multivariate geochemical data, 1984-; Ph.D. thesis (Stanley).

Computer programming for stochastic modelling of intercorrelated multivariate populations is nearing completion, and will permit rigorous testing of the efficiency of various threshold selection techniques used in applied geochemistry.

254. TILKOV, M., SINCLAIR, A.J., Univ. British Columbia (Geological Sciences):
Geostatistical evaluation of ore reserves, Pinchi Lake mercury deposit, British Columbia, 1984-; M.Sc. thesis (Tilkov).

Accumulation of a computer-based file of assay and geological data is underway.

255. ZODROW, E.L., University College of Cape Breton (Geology):
A factor-analytical model of basin development: Sydney (Upper Carboniferous), Nova Scotia, 1982-.

Using a 33x33 data matrix of chemical elements and thickness of coals from the Sydney coalfield, orthogonal factors are extracted from which it is possible to hypothesis a sedimentological model. By furthermore selecting independent variables using the factor matrix, a prediction model is constructed for ash and total sulfur content. A comparison is also made with a stepwise regression model.

GEOMORPHOLOGY/GÉOMORPHOLOGIE

256. DUBOIS, J-M.M., Univ. Sherbrooke (Géographie):
Les régions naturelles du Québec: sections des Cantons de l'Est et de la Côte Nord du Saint-Laurent, 1984-85.

Mise au point sur la physiographie.

257. DUBOIS, J-M.M., LESSARD, G., Univ. Sherbrooke (Géographie):
Géomorphologie et évolution littorale de la Côte Nord du Saint-Laurent, 1976-85.

Voir:

Géomorphologie et sensibilité des côtes aux déversements d'hydrocarbures dans le golfe du Saint-Laurent; Coastal Studies in Canadian Geography no. 3, Saint Mary's Univ., Halifax, p. 2-24, 1984.

Évolution littorale multitemporelle d'une côte récemment déglacée du nord du golfe du St-Laurent; Revue de géomorphologie dynamique, vol. 33, no. 3, p. 81-96, 1984.

Projet d'évolution des littoraux du golfe du St-Laurent: tendances d'évolution actuelle du littoral à Sept-Iles, Québec; Coastal Studies in Canadian Geography no. 3, Saint Mary's Univ., Halifax, p. 42-50, 1984.

Établir les tendances d'évolution (érosion-sédimentation) à partir de données géologiques, géomorphologiques, historiques et de terrain.

258. FORBES, D.L., Geol. Surv. Can.:
Morphology, sedimentology, and dynamics of Newfoundland coast, 1981-.

See:

Coastal geomorphology and sediments of Newfoundland; Geol. Surv. Can., Paper 84-1B, p. 11-24, 1984.

259. FOX, J.C., RICHARDSON, R.J., SHAM, P., Alberta Research Council (Geol. Surv.):
Aggregate resources of the Peace River-High Level area, Alberta, 1984-85.

260. GWYN, Q.H.J., HÉTU, B., Univ. Sherbrooke (Géographie):
Hydrogéologie et hydrogéomorphologie de la dissolution des roches carbonatées au nord du golfe du Saint-Laurent, 1981-85.

Étude du karst: géomorphologie, hydrogéologie, érosion.

261. JOHNSON, P.G., Univ. Ottawa (Geography):
Rapid mass movement slope processes, southwestern Yukon, 1980-86.

High magnitude processes producing a range of form from rock glaciers to debris flow lobes. Deglaciation instabilities are the primary cause of the high magnitude flows with adjustments by surface processes due to avalanching. Slope evolution in alpine areas is dominated by these processes.

262. JOHNSON, P.G., Univ. Ottawa (Geography):
The role of high magnitude physical events in landscape evolution in Alpine areas, 1984-87.

To illustrate the dominant role played by drainage events from glaciers, drainage of glacier dammed lakes, glacier surges and high-magnitude slope processes in the evolution of the alpine environment.

263. JOHNSON, P.G., KODYBKA, R.J., Univ. Ottawa (Geography):
Late Quaternary glaciation of the Ruby Range, southwestern Yukon, 1982-86; Ph.D. thesis (Kodybka).

The application of heavy mineral and other trace element techniques to the problem of delineation of the late Quaternary glacial limits and the relationship to the local cirque glaciations.

264. JOHNSON, P.G., LACASSE, D., Univ. Ottawa (Geography):
Holocene glacier fluctuations, southwestern Yukon, 1984-86; M.A. thesis (Lacasse).

A study of the applicability of a multifluctuation Holocene glaciation model to the southwest Yukon. Emphasis is on the multi lobed glacier debris system rock glaciers of the Dalton Range and the moraine sequences of the cirque glaciers of the Ruby Range.

265. KUCERA, R.E., Univ. British Columbia (Geological Sciences):
Frost induced erosion of coastal cliffs, Vancouver, British Columbia, 1978-85.

Erosion of Point Grey cliffs have been monitored from 1978 to present time. Approximately 80% of the annual erosion occurred during a short period each winter when ground temps. fell below 0°C. Northward facing cliffs recede an average 7 cm/yr excluding freezing activity and the average annual retreat due to freezing is 28 cm/yr. West-facing cliffs are retreating 15 cm/yr including frost-induced erosion.

266. PROVENCHER, L., DUBOIS, J-M.M., Univ. Sherbrooke (Géographie):
Géomorphologie des littoraux lacustres et fluviaux, 1980-86.

Voir:

Méthodologie d'analyse des rivages du réservoir Taureau d'Hydro-Québec; 4e Colloque biennal sur l'aménagement au Québec, Sherbrooke, résumé des conférences, p. 5, 1984.

Modelé riverain et dérivées récréatives des lacs au Québec: application aux Cantons de l'Est; Dépt. géographie, Univ. Sherbrooke, Bull. de recherche no. 73-74, 1984.

GEOPHYSICS/GÉOPHYSIQUE

ELECTRICAL/MÉTHODES ÉLECTRIQUES

267. BARLOW, R.B., Ontario Geol. Surv.:
Night Hawk geophysical test range, Ontario, 1981-.

See:

Night Hawk geophysical test range results, District of Cochrane; Ontario Geol. Surv., Misc. Paper 119, p. 139-146, 1984.

During the 1984 summer field season, survey and research activity continued on the Night Hawk geophysical test range near Timmins, Ontario, and included interpretation work on data collected in recent years and new field work using the UTEM III system. A number of instrument manufacturing companies carried out independent testing programs.

268. BARLOW, R.B., PITCHER, D.H., KRENTZ, D.H., McNEILL, J.D., Ontario Geol. Surv.:
Electromagnetic studies in the Black River-Matheson (BRIM) area, Ontario, 1983-86.

See:

An airborne electromagnetic-magnetic survey of the Black River-Matheson (BRIM) area, District of Cochrane; Ontario Geol. Surv., Misc. Paper 119, p. 287-289, 1984.

Mapping and overburden in the Black River-Matheson (BRIM) area, District of Cochrane, employing an airborne time-domain system; ibid., p. 299-307, 1984.

Electromagnetic depth sounding of Quaternary sequences in parts of Walker and Taylor Townships, Black River-Matheson (BRIM) area, District of Cochrane; p. 133-138, 1984.

An airborne electromagnetic-magnetic survey was flown for the Ontario Geological Survey and released publicly in May of 1984. This INPUT survey covered an area of approximately 3350 km^2 from the Black River-Matheson area to the Ontario-Quebec border. Two projects commenced this year utilizing the results of the electromagnetic data directly and indirectly. Firstly, reprocessing of the digital, airborne, time domain data produced a filtered difference (Channel 1-Channel 2) map which was, after interpretation, found to yield an accurate outline of the deeper sections of lacustrine clays in the area. Secondly, a ground electromagnetic technique was developed for the purpose of identifying small-scale buried valleys in clay covered areas. The two techniques can be used as an aid to develop an optimum strategy for conducting overburden drilling programs.

269. BAZINET, R., Ecole Polytechnique (Génie minéral):
Développement d'un système de mesure magnétotellurique, 1984-86.

Conception électronique du système complétée à 60%. Le prototype sera construit au cours de l'été 1985.

270. BAZINET, R., CHOUTEAU, M., LEGAULT, J.M., Ecole Polytechnique (Génie minéral):
Etude magnétotellurique de la ceinture métavolcanique de l'Abitibi, 1983-84.

Les 44 sondages MT complétés l'an dernier ont maintenant été interprétés. Ils révèlent une structure conductrice dans la croûte profonde. Les détails de l'interprétation sont disponibles dans le rapport soumis au MERO.

271. BAZINET, R., DARLING, R., TRUDEL, P., Ecole Polytechnique (Génie minéral):
Evaluation du potentiel minéral de conducteurs INPUT, 1983-86.

Mise au point de méthodes d'exploration destinées à localiser des gîtes minéraux à l'intérieur de longs conducteurs localisés par la méthode INPUT. Les résultats des levés effectués en 1983 ont été analysés et vérifiés par forage. Le travail se poursuit.

272. BAZINET, R., LEGAULT, J.M., Ecole Polytechnique (Génie minéral):
Etude magnétotellurique de sites d'enfouissement de déchets nucléaires, 1984-85; M.Sc.A. (Legault).

Travail de terrain complété sur le site Atikokan RA-4. Rapport soumis à EMR. Mémoire et communication en cours de préparation.

273. BAZINET, R., VALLÉE, M.A., Ecole Polytechnique (Génie minéral):
Magnétotellurique haute fréquence, 1982-85; thèse de doctorat (Vallee).

Nous sommes en train de développer des instruments et des méthodes destinées à effectuer des levés MT à des fréquences allant jusqu'à 1MHz ce qui sera utile en prospection dans les roches résistantes du bouclier canadien ainsi que pour des applications en génie civil.

274. BOUCHARD, K., CHOUTEAU, M., Ecole Polytechnique (Génie minéral):
Optimisation de la méthode magnétotellurique en exploration minérale, 1985-86; M.Sc.A. (Bouchard).

Evaluation de la méthode magnétotellurique comme méthode de prospection profonde: évaluation des possibilités et limites de profilage scalaire, évaluation de l'effet de la topographie sur les levés, choix d'une densité de stations optimum.

275. DYCK, A.V., Geol. Surv. Can.:
Borehole geophysics (electrical and magnetic techniques), 1976-.

276. DYCK, A.V., MARCHAND, N., Queen's Univ. (Geological Sciences):
Drillhole electromagnetic interpretation, 1984-85; M.Sc. thesis (Marchand).

Application of state-of-the-art interpretation procedures to drill-hole electromagnetic data for detailed correlation with massive-sulphide mineralization, in order to advance level of quantitative interpretation.

277. MAYRAND, L., BAZINET, R., Ecole Polytechnique (Génie minéral):
Modélisation de levés de polarisation provoquée de type pole-pole, 1984.

Développement de meilleures méthodes d'interprétation PP à partir d'études sur modèles résuits.

278. SINHA, A.K., Geol. Surv. Can.:
Evaluation of two deep sounding E.M. systems, 1981-.

279. THEVENIN, J., CHOUTEAU, M., Ecole Polytechnique (Génie minéral):
La méthode magnétotellurique appliquée à la prospection de gisements profonds, 1985-86; M.Sc.A. (Thevenin).

Evaluer le potentiel de la méthode magnétotellurique pour détecter des gisements profonds. Etude sur modèles réduits tridimensionnels des réponses.

EXPLORATION/PROSPECTION

280. BURKE, K.B.S., CHANDRA, J., Univ. New Brunswick (Geology):
Geophysical exploration surveys in epicentral region of 1982 Miramichi earthquakes, 1982-.

Ground VLF surveys were extended during the summer of 1984 to assist with the mapping of fracture zones in the epicentral region of the Miramichi Earthquake. In addition, ground magnetic and terrain conductivity traverses were also run over suspected fracture zones.

281. CHARBONNEAU, B.W., Geol. Surv. Can.:
Regional interpretation of gamma ray spectrometry, 1984-.

282. DESCHAMBAULT, C., CHOUTEAU, M., Ecole Polytechnique (Génie minéral):
Interprétation géologique de la région de Weedon (Québec) à l'aide des levés magnétiques et gradiométriques aéroportés, 1985-86; M.Sc.A. (Deschambault).

Il s'agit d'évaluer la méthode gradiométrique (magnétique) comme outil de cartographie et d'interpréter la géologie d'une région (Weedon, Estrie) à caractère économique (potentiel minéral).

283. FORD, K.L., Geol. Surv. Can.:
Applications of gamma ray spectromery, 1984-.

284. GHANEM, Y., CHOUTEAU, M., Ecole Polytechnique (Génie minéral):
Interprétation détaillée d'un levé aéromagnétique au Hoggar (Algérie), 1985-86; M.Sc.A. (Ghanem).

Interprétation à partir d'un levé aéromagnétique et radiométrique d'une région du Hoggar (Algérie) à fort potentiel économique.

285. GRASTY, R.L., Geol. Surv. Can.:
Gamma-ray spectrometry (technique development), 1972-.

286. MACNAB, R.F., Geol. Surv. Can.:
East coast offshore surveys, 1973-.

287. MARTEL, A.T., New Brunswick Dept. Nat. Res. (Geol. Surv. Br.):
Seismic stratigraphy and petroleum potential of the Cumberland Subbasin of New Brunswick, 1984.

288. MOON, W., TANG, R., CARSWELL, A., Univ. Manitoba (Earth Sciences):
Seismic wavefield separation using Radon Transform, 1982-.

See:

Velocity analysis in the p-x plane from a slant stack wavefield; Geophysical Prospecting, vol. 32, p. 1016-1032, 1984.

289. WOODS, D.V., KRENTZ, D.H., TAYLOR, S., Queen's Univ. (Geological Sciences):
Interpretation of transient electromagnetic soundings and borehole measurements, 1980-86; M.Sc. thesis (Krentz, Taylor).

290. WOODS, D.V., YOUNG, R.P., McGAUGHEY, J.W., Queen's Univ. (Geological Sciences):
Optimization of the shallow, high-resolution seismic reflection technique for mineral exploration and geological engineering, 1983-86; M.Sc. thesis (McGaughey).

See:

Shallow, high-resolution, seismic reflection investigation of the Paleozoic-Precambrian unconformity in eastern Ontario; Ontario Geol. Surv., 1985.

Currently funded by an Imperial Oil Research Grant.

GEOMAGNETISM-PALEOMAGNETISM/ GÉOMAGNÉTISME-PALÉOMAGNÉTISME

291. BOWER, M.E., Geol. Surv. Can.:
Ocean aeromagnetics, 1965-.

See:

Direct geophysical evidence for displacement along Nares Strait (Canada-Greenland) from low-level aeromagnetic data: a progress report; Geol. Surv. Can., Paper 85-1A, p. 517-522, 1985.

292. BROOME, J., Geol. Surv. Can.:
Magnetic interpretation techniques, 1984-.

293. BUCHAN, K.L., Geol. Surv. Can.:
Vertical movements of the Precambrian Shield, 1980-.

294. BUCHAN, K.L., Geol. Surv. Can.:
Paleomagnetism of Nipissing diabase and Abitibi dykes, Ontario and Quebec, 1982-.

See:

Preliminary comparison of petrographic and paleomagnetic characteristics of Nipissing diabase intrusions in northeastern Ontario; Geol. Surv. Can., Paper 85-1A, p. 131-140, 1985.

295. CHRISTIE, K.W., Geol. Surv. Can.:
Paleomagnetism and rock magnetism instrumentation and technological development, 1970-.

296. CURRIE, R.G., Geol. Surv. Can.:
Marine magnetic surveys, Pacific margin, 1980-.

297. FAHRIG, W.F., Geol. Surv. Can.:
Paleomagnetism of the dykes of west Greenland, 1972-.

298. FAHRIG, W.F., Geol. Surv. Can.:
Paleomagnetism of Proterozoic igneous and sedimentary rocks of the Precambrian Shield, 1984-.

299. HALLS, H.C., Univ. Toronto (Geology):
Paleomagnetism of the Kenora-Kabetogama dyke swarm, Minnesota and Ontario, 1981-84.

A primary magnetization about 2.1 Ga old is well-preserved in the Kenora-Kabetogama dyke swarm in Minnesota and Ontario. Its direction, the mean for twelve dykes, incorporating results from 30 paleomagnetic sites, is 115.9/-55.6° yielding a paleomagnetic pole position of LAT 42.7°S, LONG 4.2°E (dm = 7.3°, dp = 5.2°).

The primary nature of the magnetization can be demonstrated using geochemistry to correlate individual dykes over distances that can exceed 300 km. While the remanence direction varies between dykes it remains constant along a dyke, sufficient proof that it was formed during initial cooling of the dyke.

A weak longitudinal increase in hydrous alteration, MgO content and degree of magnetic overprinting is observed as the swarm is followed to the south and may reflect increasing proximity to a Precambrian continental margin that underwent rifting, sedimentation and deformation during the time interval 2.2 to 1.8 Ga bp. While the cause of the longitudinal changes in terms of margin evolution can only be surmised, the results illustrate the potential of dyke swarms as sensitive indicators of how shield terrains may respond to events occurring around their margins.

300. HALLS, H.C., JACKSON, K.C., Univ. Toronto (Geology);
Paleomagnetic and structural data from Mesozoic sills, Sverdrup Basin, Canadian Arctic Archipelago, 1981-86.

A paleomagnetic fold-test of sills in the North Mokka Anticline shows that the deformation both pre- and post-dates the intrusion of diabase. The anticline is one of several in the eastern part of the Sverdrup Basin that are associated with evaporite diapirs. This Late Paleozoic-Early Tertiary sedimentary basin was deformed by the Late Cretaceous to Tertiary Eurekan Orogeny, but the extent to which the orogeny initiated and formed the diapirs has been debated. The paleomagnetic direction obtained from the anticline, 285° + 73°, is the same as that from a nearby Cretaceous lava flow. The corresponding paleopole, 180°N 61°E, is also in agreement with a Cretaceous age of intrusion. These results support the suggestion that the diapirism in the Sverdrup Basin is older than, and independent of, the Eurekan Orogeny. The asymmetric distribution of sills on the anticline may reflect a local stress-environment created by the diapir.

301. HALLS, H.C., SHAW, E.G., Univ. Toronto (Geology):
Structural and paleomagnetic data from dyke swarms in the eastern Lake Superior Region, 1982-84; M.Sc. thesis (Shaw).

Twenty-three dykes in a southern traverse and sixteen dykes in a northern traverse were sampled. Based on paleomagnetic direction, there appear to be at least four ages of dyke intrusions in the interior corresponding to Keweenawan, Sudbury, Matachewan and an undated dyke set that has similar lithology and paleomagnetic direction to 2.1 Ga-old Preissac dykes. All sampled interior dykes trend NW to N, and beyond about two km from the shoreline, dip less than 5 to 10 degrees from the vertical. Dykes within about two km of the shoreline tend to have a more westerly trend and all dip NE at angles ranging from 45 to 70 degrees. These dykes, in comparison with those of the interior, are more altered and sheared, especially at the margins.

An easterly rotation of approximately 40 degrees about a NNW axis returns both the attitude and paleomagnetic direction of the coastal dykes to those of the control group. This is in agreement with the rotation needed to return the Keweenawan rocks in the south to the horizontal. The combination of rotated attitudes and paleomagnetic poles--and also the large degree of shearing--indicates that the present anomalous dips and strikes of the coastal dykes are due to tectonic rotation and not to a geographic change the ambient stress field during dyke emplacement. In addition, the study shows that, at least locally, a rim of shield no more than 2 km wide has been tilted in response to subsidence in the Lake Superior Basin.

302. LANGRIDGE, R.J., FARRAR, E., CLARK, A.H., ROY, J., Queen's Univ. (Geological Sciences), EMR (Earth Physics):
A paleomagnetic study of the Arequipa Massif, southern Peru, 1982-; Ph.D. thesis (Langridge).

Studies of the Precambrian to present igneous, sedimentary and volcanic rocks exposed in this area are continuing using the facilities available at the Geomagnetic Laboratory in Ottawa.

303. LERBEKMO, J.F., Univ. Alberta (Geology):
Magnetostratigraphy of the Frenchman and Lower Ravenscrag formations, Frenchman River Valley south of Shaunavon, Saskatchewan, 1984-85.

To assess the temporal magnitude of the sub-Frenchman unconformity.

304. McGLYNN, J.C., Geol. Surv. Can.:
Paleomagnetic study of Proterozoic red beds of the western Canadian Shield, 1968-.

305. OLSON, D.G., Geol. Surv. Can.:
High resolution aeromagnetics (experimental surveys), 1968-.

306. SAWATZKY, P., Geol. Surv. Can.:
High resolution aeromagnetics (instrumentation development), 1977-.

307. WOODS, D.V., ALLARD, M., GEIGER, H.O., Queen's Univ. (Geological Sciences):
Geomagnetic deep sounding in North America using magnetometer arrays, 1981-; M.Sc. theses (Allard, Geiger).

See:

The pattern of anomalous geomagnetic variation fields over the mid-continent gravity high; J. Geophysical Res., vol. 89, p. 7773-7782, 1984.

Large-scale electromagnetic induction investigation of the Kapuskasing Structural Zone; Geol. Surv. Canada, Paper 85-1A, p. 533-542, 1985.

Currently funded by an N.S.E.R.C. Operating Grant and a Phase 1 Lithoprobe Grant. Will be taking part in Project EMSLAB with N.S.F. and N.S.E.R.C. support.

GRAVITY/GRAVITÉ

308. GUPTA, V.K., WADGE, D.R., Ontario Geol. Surv.:
Gravity Survey – Kirkland Lake-Larder Lake-Matheson area, Ontario, 1984-85.

See:

Gravity mapping in the Kirkland Lake-Larder Lake-Matheson area, Districts of Timiskaming and Cochrane; Ontario Geol. Surv., Paper 119, p. 126, 127, 1984.

A gravity surveying program has been initiated by the Ontario Geological Survey to map the deeper geological and structural characteristics of the Abitibi greenstone belt for the purpose of arriving at a better understanding of its evolution and associated mineral deposits. Section staff established approximately 2000 new gravity stations in the Kirkland Lake, Larder Lake and Matheson area (~8000 km^2). Density determinations were carried out on approximately 850 rock specimens collected during the survey work.

309. MILLER, H.G., AHMED, F.K., PEAVY, S.T., KILFOIL, G., Memorial Univ. (Earth Sciences):
Carboniferous basins of western Newfoundland – the geophysical signatures, 1981-; M.Sc. theses (Ahmed, Peavy, Kilfoil).

To determine the geometry of the Carboniferous Basins of western Newfoundland using geophysical methods.

310. MILLER, H.G., MOHANTY, P.R., Memorial Univ. (Earth Sciences):
Avalon geophysical correlations – onshore and offshore, 1980-; M.Sc. thesis (Mohanty).

To use geophysical techniques, particularly gravity and magnetics to trace the onshore geology of the Avalon Zone to the offshore to understand the role of Precambrian tectonics in forming the younger basin of the area.

311. SEGUIN, M.K., DESBIENS, J., Université Laval (Géologie):
Gravimétrie de la région St-Simeon, Ste-Anne de Beaupré, Québec, 1982-85; thèse de maîtrise (Desbiens).

Le liné gravimetrique a pour but de miller en évidence les influences relatives des structures géologiques majeures, les relations avec l'intensité sismique, le(s) modèle(s) tectonique(s) le(s) probable(s) de cette fraction de la province de Grenville.

SEISMOLOGY AND PHYSICS OF INTERIOR/ SISMOLOGIE ET PHYSIQUE DE L'INTÉRIEUR DE LA TERRE

312. BURKE, K.B.S., Univ. New Brunswick (Geology):
Study of historical seismicity in the Maritime Provinces, 1984-.

A systematic search is being made for reports of earthquakes in historical documents from representative locations in the Maritime Provinces.

313. FRYDECKY, I.I., Geol. Surv. Can.:
Marine reflection seismology of the Western Canadian Continental Margin, 1983-.

314. GAGNE, R.M., Geol. Surv. Can.:
Shallow seismic, 1979-.

315. HAMILTON, T.S., Geol. Surv. Can.:
The geology of the Strait of Georgia, British Columbia, 1982-.

316. HUNTER, J.A., Geol. Surv. Can.:
High resolution seismic investigations of Carboniferous rocks, Nova Scotia, 1984-.

317. JACKSON, H.R., Geol. Surv. Can.:
Arctic Ocean: seismic refraction and related geophysical measurements, 1978-.

318. KREBES, E.S., HEARN, D.J., COFLIN, K.C., Univ. Calgary (Geology and Geophysics):
Seismic wave propagation in a linear viscoelastic medium, 1977-.

See:

On the reflection and transmission of viscoelastic waves – some numerical results; Geophysics, vol. 49, p. 1374-1380, 1984.

On the geometrical spreading of viscoelastic waves; Bull. Seism. Soc. Am., vol. 75, 1985.

319. LAWTON, D.C., POLEY, D.F., CHEADLE, S., Univ. Calgary (Geology and Geophysics):
High resolution reflection seismology in permafrost-affected areas of the Canadian Beaufort Sea; Ph.D. theses (Poley, Cheadle).

See:

Acquisition and processing of high-resolution reflection seismic data from permafrost affected areas of the Canadian part of the Beaufort Sea; Geol. Surv. Can., Paper 85-1A, p. 491-498, 1985.

Development of a physical seismic modeling system, University of Calgary; ibid., p. 499-516, 1985.

320. MOON, W., Univ. Manitoba (Earth Sciences):
Study of Earth's long period normal modes, 1976-.

321. MOON, W., CARSWELL, A., Univ. Manitoba (Earth Sciences):
High Resolution VSP seismic survey at the AECL URL site for the fracture pattern study, 1982-; M.Sc. thesis (Carswell).

322. MOON, W., DILLISTON, C., Univ. Manitoba (Earth Sciences):
Seismic surface wave analysis research for the Canadian prairie region, 1983-; M.Sc. thesis (Dilliston).

323. OVERTON, A., Geol. Surv. Can.:
Ice Island seismic reflection studies, 1984-.

324. REID, I., Geol. Surv. Can.:
Seismic studies of continental margins and ocean basins of the North Atlantic, 1980-.

325. REID, I., Geol. Surv. Can.:
Seismicity studies of the eastern Canadian margin, 1983-.

326. WOODS, D.V., Queen's Univ. (Geological Sciences):
Establishment of a three-station seismometer array and long-term monitoring of seismicity in the vicinity of Kingston, Ontario, 1981-86.

See:

Regional seismic monitoring: annual report of the Queen's seismic array, 1983; Ontario Hydro Report No. 85029, Toronto, 1984.

OTHER/AUTRE

327. BRISTOW, Q., Geol. Surv. Can.:
Nuclear and analytical instrumentation, 1981-.

See:

Temperature gradient measurements in boreholes using low noise high resolution digital techniques; Geol. Surv. Can., Paper 84-1B, p. 101-108, 1984.

328. GODFREY, J.D., SPRENKE, K.F., LANGENBERG, C.W., Alberta Research Council (Geol. Surv.):
Geophysical aspects of the Shield in Alberta, 1972-85.

Interpretation and correlation of gravity, aeromagnetic and radiometric surveys with bedrock lithology and structure complete. Crustal model and deep structural configuration established.

329. HUNTER, J.A., Geol. Surv. Can.:
Beaufort Sea permafrost geotechnics, 1984-.

330. KATSUBE, T.J., Geol. Surv. Can.:
Pore structure in crystalline rocks, 1981-.

331. KEEN, C.E., Geol. Surv. Can.:
Rift processes and the development of passive continental margins, 1980-.

332. MWENIFUMBO, C.J., Geol. Surv. Can.:
Borehole geophysics applications to coal, 1982-.

See:

New developments in the GSC borehole geophysics test area and calibration facilities; Geol. Surv. Can., Paper 84-1B, p. 373, 374, 1984.

333. MOON, W., SEONGHO, Na, Univ. Manitoba (Earth Sciences):
Dynamic history of Earth and Earth-Moon system, 1984-; Ph.D. thesis (Seongho Na).

334. MOON, W., TANG, R., Univ. Manitoba (Earth Sciences):
Study of Earth's outermost boundary layer using satellite altimeter data, 1981-; M.Sc. thesis (Tang).

See:

On the hydrodynamic correction of SEASAT-ALT data; European Space Agency Tech. Rept. SP-215, p. 553-557, 1984.

335. ROCHESTER, M.G., Memorial Univ. (Earth Sciences):
Theoretical global geodynamics, 1961-.

See:

Causes of fluctuations in the rotation of the Earth; Phil. Trans. Roy. Soc. London, A, vol. 313, p. 95-105, 1984.

The dynamics of the Earth's inner and outer cores; Reports on progress in Physics, vol. 47, p. 855-906, 1984.

336. SCHWARZ, E.J., Geol. Surv. Can.:
Geophysical interpretation Abitibi Belt, Ontario and Quebec, 1983-.

ENGINEERING GEOLOGY/GÉOLOGIE DE L'INGÉNIEUR

337. BORNHOLD, D., Geol. Surv. Can.:
Shallow seabed geology and geologic hazards, Hecate Strait and Dixon Entrance, Pacific Offshore, 1984-.

338. CRUDEN, D.M., Univ. Alberta (Geology):
Geotechnical characterization of materials in slope movements in the Cordillera.

To characterize materials in slope movements in the Canadian Cordillera sufficiently for approximate stability analyses of the moving slopes to be undertaken.

339. DURAND, B., Ecole Polytechnique (Génie minéral):
Le rôle des additifs minéraux dans les bétons faits de granulats réactifs aux alcalis du ciment, 1983-85; M.Sc.A.

Le travail consiste a étudier la nature physique et chimique de pouzzolanes, cendres volantes et fumées de silice provenant de 11 industries canadiennes et de voir comment ces substances réduisent les méfaits des alcalis sur des granulats connus comme étant réactifs.

340. EVANS, S.G., Geol. Surv. Can.:
Landslide hazard in the Canadian Cordillera, 1983-.

See:

The geomorphic effects of the July 1983 rainstorms in the southern Cordillera and their impact on transportation facilities; Geol. Surv. Can., Paper 84-1B, p. 223-235, 1984.

341. FRANKLIN, J., BRADSHAW, L., Univ. Waterloo (Earth Sciences):
Development of constant head permeameter technique for evaluation of domestic tile bed soils foundation, 1984-85; M.Sc. thesis (Bradshaw).

Development and testing of a field portable constant head permeameter. Evaluation and comparison with standard perculation test at a number of field locations and different soil types.

342. FRANKLIN, J., HOORNWEG, D., Univ. Waterloo (Earth Sciences):
Numerical analysis of pressures and displacement on continuously extruded tunnel liner, 1984-85.

Review and parametric studies time dependent pressure and displacement development on an extruded concrete tunnel liner.

343. FRANKLIN, J., LAU, P., Univ. Waterloo (Earth Sciences):
Review of conditions and problems for rock foundations in Toronto, 1984-85.

Review of practical engineering conditions and problems for Toronto foundations including excavating requirements, burying pressures, foundations types, water inflows and control, geological conditions, rock squeeze problems, and excavation supports.

344. FRANKLIN, J., MAERZ, N., Univ. Waterloo (Earth Sciences):
Photo analysis of rock jointing patterns, 1984-88; Ph.D. thesis (Maerz).

Development of techniques for digitization of rock joint patterns using photographs. Automatic photo scanning methods and numerical processing of data on joint patterns to obtain statistic relevant to engineering design.

345. FRANKLIN, J., McLACHLIN, D., Univ. Waterloo (Earth Sciences):
Development of point load strength test for aggregate particles, 1984-85; M.Sc. thesis (McLachlin).

Development of a modify point load strength testing machine for measuring strength of aggregate particles down to 9 mm diameter, and investigation of size and shapes effect.

346. FRANKLIN, J., SENIOR, S., Univ. Waterloo (Earth Sciences):
Thermal characteristics of rock aggregates, 1984-85; M.Sc. thesis (Senior).

-20 to +60°C using a strain gauge technique on rock cubes. Investigation of linearity and hysteresis.

347. FRANKLIN, J., WORKMAN, D., Univ. Waterloo (Earth Sciences):
Erosion and shallow instability in shale slopes, 1984-85.

Review and field study to investigate mechanisms of shale weathering, disintegration, erosion and shallow instability in slopes along rivers and highways. Investigation of relationships between erosion rates, slope angles, slope heights and weathering processes.

348. GADD, N.R., Geol. Surv. Can.:
Geological variability of marine deposits, Ottawa-St. Lawrence Lowland, 1974-.

349. HEGINBOTTOM, J.A., Geol. Surv. Can.:
Slope processes and cryogenic movements, Arctic Islands, 1977-.

See:

The bursting of a snow dam, Tingmisut Lake, Melville Island, Northwest Territories; Geol. Surv. Can., Paper 84-1B, p. 187-192, 1984.

Continued headwall retreat of a retrogressive thaw flow slide, eastern Melville Island, Northwest Territories; ibid., p. 363-365, 1984.

350. KONRAD, J.-M., National Research Council of Canada (DBR):
1. Submarine slope stability.
2. Strength and deformation properties of seabed soils under static and dynamic conditions, 1984-88.

See:

Undrained cyclic behaviour of Beaufort Sea silt; Arctic '85, ASCE Specialty Conf., San Francisco, March, 1985.

Focused on both the Beaufort Sea and the Nova Scotian Shelf. The assessment of seabed stability under earthquake loading should provide valuable insight into late Quaternary slumps and debris flows on the Scotian Shelf.

351. LUTERNAUER, J.L., Geol. Surv. Can.:
Potential geologic hazards to development – seafloor and shallow subbottom of Queen Charlotte Sound, British Columbia, 1984-.

352. SOLES, J.A., MIRKOVICH, V.V., EMR (CANMET):
Underground nuclear waste repository: thermal properties of repository rocks, 1977-.

Samples from AECL test sites being prepared for routine testing of response to thermal loads.

353. VLADUT, T., SINGHAL, R.K., KOLADA, R.J., EMR (CANMET):
Identification of problems in open pit oil sands, 1984.

Unidentified areas: 1) smaller and new types of equipment; 2) reserves in productivity enhancement related to tire ground interaction trafficability.

GEOTHERMAL/GÉOTHERMIQUE

354. PALMER, J.H.L., SVEC, O.J., National Research Council of Canada (DBR):
Ground heat storage, 1978-86.

See:

Heat transfer in-ground; Chapter 6, Final Report, IEA Advanced Heat Pumps, Annex II – Vertical Earth Heat Pump Systems, 1984.

Four full-scale in-ground storage systems under test with objective of developing a numerical model. Additional studies on vertical earth heat exchangers for use with ground source heat pumps undertaken as part of International Energy Agency Program.

PERMAFROST/PERGÉLISOL

355. BAKER, T.H.W., National Research Council of Canada (DBR):
Physical and mechanical properties of frozen ground, 1971-85.

See:

A probe for measuring both thermal conductivity and water content of soils; Proc. 3rd Internat. Specialty Conf. on Cold Regions Engineering, vol. 2, p. 835-849, 1984.

Geotechnical investigations in the Southern Beaufort Sea, Spring 1984; Geol. Surv. Can., Open File No. 1078, 40 p., 1984.

Work is continuing on the preparation of a Permafrost Laboratory Testing Manual. Strength reductions and deformation increases have been measured in frozen sands with increasing salinity. Preparation procedures for reconstituting soil specimens to be artificially frozen and their relation to strength properties will be investigated.

356. GOODRICH, L.E., National Research Council of Canada (DBR):
Ground thermal regime, 1970-88.

See:

A probe for measuring both thermal conductivity and water content of soils; Proc. Third Internat. Specialty Conf. on Cold Regions Engineering, vol. II, p. 835-849, 1984.

Field measurements of soil thermal conductivity have been completed at Thompson, Manitoba; Ottawa, Ontario, and on the Mackenzie Highway and results reported.

357. HARRY, D.G., Geol. Surv. Can.:
Characterization of ground ice occurrence in northern Canada, 1984-.

See:

Ice wedges and permafrost conditions near King Point, Beaufort Sea coast, Yukon Territory; Geol. Surv. Can., Paper 83-1A, p. 111-116, 1983.

358. HEGINBOTTOM, J.A., Geol. Surv. Can.:
Properties and distribution of permafrost and ground ice, 1983-.

359. JOHNSTON, G.H., National Research Council of Canada (DBR):
Performance of insulated and uninsulated embankments for roads and airfields constructed on permafrost, 1956-86.

Field work has been terminated at test sites near Thompson, Manitoba and Inuvik, Northwest Territories and reports are being prepared. Field measurements are continuing at sites on the Dempster Highway, Yukon and at Inuvik, Northwest Territories.

360. JOHNSTON, G.H., National Research Council of Canada (DBR):
Performance of building and bridge foundations, 1960-86.

Observations on performance of bridge foundations on the Dempster Highway, Yukon and building foundations at Inuvik and Alert, Northwest Territories are continuing.

361. KURFURST, P.J., Geol. Surv. Can.:
Measurements of dynamic elastic moduli of frozen and unfrozen surficial materials, 1982-.

See:

Drilling and sampling in frozen seabottom sediments, southern Beaufort Sea; Geol. Surv. Can., Paper 84-1B, p. 193-195, 1984.

362. PARAMESWARAN, V.R., National Research Council of Canada (DBR):
1. Model studies of foundations in frozen ground. 2. Physico-mechanical properties of frozen soils, 1975-86.

See:

Effect of dynamic loads on piles in frozen soils; Proc. Third Internat. Specialty Conf., Cold Regions Engineering, vol. 1, p. 41-52, 1984.

Adfreeze strength of model piles in frozen soils was determined under static and dynamic loads. Alternating load enhances the rate of displacement of piles in frozen soils. Compressive strength of frozen soils was measured under confined and unconfined conditions. From these measurements a criterion for design of foundations in frozen ground will be developed.

363. TAYLOR, R.B., Geol. Surv. Can.:
Permafrost processes in Arctic beaches, 1983-.

ROCK MECHANICS/MÉCANIQUE DES ROCHES

364. ANNOR, A., JACKSON, R., EMR (CANMET):
Geomechanics in nuclear waste disposal, 1976-.

See:

Overview – rock mechanics/rock properties; CANMET Rept. ERP 84-10 (OP, J), 1984.

Development and utilisation by 1988 of field and laboratory techniques to assess the thermal, mechanical and fluid transport properties of rock formation in relation to high-level radioactive waste disposal.

365. ASTON, T.R.C., EMR (CANMET):
Development and initiation of instrumentation programmes to monitor seafloor subsidence in order to determine the applicability of existing undersea mining guidelines, 1983-.

See:

Instrumentation schemes capable of measuring seafloor subsidence over longwall mining operations; CANMET Division Rept. ERP/CRL 85-14 (OP, J), 1985.

Undersea longwall mining subsidence with special reference to geological and water occurrence criteria in the north-east of England coalfield; CANMET Rept. ERP/CRL 85-3 (J), 1985.

366. ASTON, T.R.C., CAIN, P., EMR (CANMET):
Investigate outburst phenomena and potential remedial measures in the Sydney Coalfield, Nova Scotia, 1984.

See:

Gas and rock outbursts at No. 26 Colliery, Sydney Coalfield, Nova Scotia – a case history; CANMET Rept. ERP/CRL 85-7 (OP), 1985.

367. CAIN, P., ASTON, T.R.C., EMR (CANMET):
A detailed evaluation of barrier pillar design criteria and their application to the Sydney Coalfield, 1982-.

See:

Detailed back analysis of barrier pillar performance in the Sydney Coalfield, Nova Scotia; CANMET Rept. ERP/CRL 84-11 (J, OP), 1984.

Analysis of field data currently being undertaken by McGill University under R.A.P.

368. CAIN, P., STOKES, A.W., EMR (CANMET):
Investigation into the mechanism of gob leakage associated with different roadway drivage and gateside packing techniques and the effectiveness of preventive measures, 1983-.

See:

Preliminary report on studies into gob leakage in the Sydney Coalfield; CANMET Rept. ERP/CRL 84-43 (OP), 1984.

A field trial of a support method to reduce gob leakage starts March 1985 and will be monitored.

369. CRAWFORD, A.M., HOLLINGSHEAD, S.C., SCOTT, S.D., Univ. Toronto (Civil Engineering, Geology):
Geotechnical engineering properties of polymetallic sulfides from seafloor hydrothermal vents, 1984.

See:

Geotechnical engineering properties of deep-ocean polymetallic sulfides from 21°N, East Pacific Rise; Marine Mining, vol. 4, no. 4, p. 337-354, 1984.

Methods were designed for testing geotechnical properties of irregularly shaped and generally small samples of sulfides/sulfates from seafloor hydrothermal vents. Values were obtained for density, porosity, durability, hardness, compressive strength and cutting properties.

370. CRUDEN, D.M., FOSSEY, K., MASOUMZADEH, S., Univ. Alberta (Geology):
Stability of natural slopes in rock; M.Sc. thesis (Masoumzadeh).

See:

Landslide problems in the Canadian Cordillera; Proc. 37th Can. Geotech. Conf., p. 1-21, 1984.

Detailed mapping of selected sites at which large downslope movements in rock are occurring or have occurred has continued. Laboratory work has provided a theoretical basis for these studies.

371. DAS, B., EMR (CANMET):
Rock properties/classification for coal/oil sand mining, 1982-87.

Three papers: 2 for conference presentation and one for publication in a periodical are under preparation.

372. EISBACHER, G.H., Geol. Surv. Can.:
Study of large landslides in the Cordillera, 1976-.

373. GYENGE, M., BETOURNAY, M., EMR (CANMET):
Rock properties and support systems, 1981-.

See:

Design aspects of bolting system; CANMET Rept. MRP/MRL 83-85 (J), 1983.

To produce by 1986 new rock bolting design guidelines. A long term objective is the development of material property test guidelines for deep mining rock mechanics investigations.

374. HEDLEY, D.G.F., SWAN, G., ARJANG, B., EMR (CANMET):
Mine and regional stability, 1983-.

See:

A case history of rock bursts at Elliot Lake; CANMET Rept. MRP/MRL 84-16 (OP, J), 1984.

The study is directed at developing analytic methods and investigational procedures which will result in the availability of improved procedures for mine layout and mine design in high stress, hard rock, mine situations.

375. SWAN, G., ARJANG, B., EMR (CANMET):
Rock mass characterisation, 1983-.

See:

Prediction of sheer behaviour of joints using profile; CANMET Rept. MRP/MRL 84-58 (J), 1984.

A new approach to cemented backfill design; CANMET MRP/MRL 84-73 (J), 1984.

Development of analytical methods and investigational procedures which can be used in mine opening design where geological structures under the action of gravitational forces are the major factor controlling stability.

376. VLADUT, T., EMR (CANMET):
Utilization of microseismic technique for the mining industry, 1983-85.

See:

Study of microseismic emission from a pit slope; CANMET Rept. ERP/CRL 85-1 (OP), 1985.

A final report would be finalized in May 1985 – on practice of monitoring for mining activities – as an ERP, CRL report.

377. YU, Y.S., TOEWS, N., VONGPAISAL, S., EMR (CANMET):
Model development, 1984-.

See:

Predictions of pillar load – phase I underground service/garage stations; CANMET Rept. MRP/MRL 84-45 (TR), 1984.

Strength of a mine pillar at Copper Cliff South Mine; CANMET Rept. MRP/MRL 83-47 (TR), Mining Sci. Tech., vol. 2, p. 1-16, 1984.

The study is directed at developing numerical models and related analytic procedures to investigate the structural stability of mine and mine openings; and to apply these models and analytic procedures in comprehensive rock mechanics investigations of specific mine structures.

SOIL MECHANICS/MÉCANIQUE DES SOLS

378. HUGHES, O.L., Geol. Surv. Can.:
Surficial geology and land classification, Mackenzie Valley Transportation Corridor, 1971-.

379. LAW, K.T., BOZOZUK, M., EDEN, W.J., National Research Council of Canada (DBR):
Geotechnical properties – eastern marine clay, 1951-87.

See:

Seismic soil behaviour under an earth dyke; Proc. XI Internat. Conf. on Soil Mechanics and Foundation Engineering, San Francisco, 1985.

Computer-aided pressuremeter tests; Geotechnical Testing J., ASTM, vol. 7, no. 2, 1984.

Field studies of landslides in clay. Settlement of buildings and fills on clay. Skin friction on piles in clay. Laboratory and in situ studies on stress-deformation characteristics of clays.

380. SVEC, O.J., GOODRICH, L.E., KONRAD, J.-M., National Research Council of Canada (DBR):
Frost action in soils, 1983-88.

See:

Adfreezing stresses on steel pipe piles, Thompson, Manitoba; Fourth Internat. Conf. on Permafrost, Fairbanks, Alaska, July 1983, Proc., p. 979-983, 1983.

Studies include: numerical model for frost heave, insulated basement adfreezing study, effects of freeze-thaw cycles on the engineering properties of silty soils, and testing and evaluation of a large frost heave cell.

SNOW AND ICE/NEIGE ET GLACE

381. FREDERKING, R., SINHA, N.K., SAYED, M., National Research Council of Canada (DBR):
Sea Ice; Ice Engineering; Ice Mechanics, 1960-88.

See:

Uniaxial compressive strength of first-year and multi-year sea ice; Can. Civil Engineers, vol. 11, no. 1, p. 82-91, 1984.

Ice interaction with Adams Island, winter 1982-83; IAHR Symp. on Ice, Hamburg, August, 1984.

Does the strength of ice depend on grain size at high temperatures?; Scripta Metallurgica, vol. 17, no. 11, p. 1269-1273, 1983.

Growth, texture, fabric, strength and deformation of ice in the sea. Loads on structures generated by floating ice. Bearing capacity of ice covers.

382. SCHAERER, P.A., McCLUNG, D.M., National Research Council of Canada (DBR):
Avalanche engineering, 1966-87.

See:

Avalanche hazards in British Columbia; The B.C. Professional Engineer, vol. 34, no. 12, p. 23-24, 1983.

Avalanches in motion, summary of research; The Avalanche Review, vol. 2, no. 2, p. 1-8, 1983.

Characteristics of flowing snow and avalanche impact pressures; Symp. on Snow and Ice Proc. at the earth's surface, Sapporo, Japan, Sept. 1984.

383. JOHNSON, P.G., BINDA, G., Univ. Ottawa (Geography):
Suspended sediment regime of Slims River Valley, southwestern Yukon, 1983-85.

Final analysis phase incorporating the attached Ironic loading on the suspended sediment particles. Regime conforms to highly irregular pattern of sediment discharge related to glaciological conditions and is still dominant 20 kms from glacier terminus.

384. KOERNER, R.M., FISHER, D.A., ALT, B., BOURGEOIS, J., PARNANDI, M., LANGLEY, K., Polar Continental Shelf Project (EMR):
Paleoclimate of Arctic Islands, 1970-85.

The mass balance of four Arctic ice caps was measured. A 120 m surface-to-bedrock core was drilled at the very top of Agassiz Ice Cap on Northern Ellesmere Island. 2500 samples for oxygen isotope analysis were cut from the core and have since been analysed by Dansgaard's laboratory at the University of Copenhagen. Two separate 100 litre samples were melted at over 100 m depth in a borehole drilled in 1979. These were filtered for pollen analysis. All these samples have since been studied and the pollen counted and identified. Several 1 to 5-yr old snow samples were also collected and have since been analysed by AES in Toronto for anions and cations. The results will allow increasing levels of pollution entering the High Arctic to be quantified.

The Reeh ice sheet model was used to study bottom temperature conditions under the Laurentide ice sheet. Rheological differences between ice age and Holocene ice in our cores has been studied in terms of ice texture and fabric, ice chemistry and associated varying rates of borehole closure and tilt. Synoptic investigations of the High Arctic continue with emphasis on relating modern conditions and records to the recent past; the Franklin period during the last century was examined in this respect. Three papers were presented at an International symposium in Trent and considered statistical variations in oxygen isotope records, a vapour transport model, and modern pollen deposition in the High Arctic.

385. MENZIES, J., Brock Univ. (Geological Sciences):
Subglacial environments – glacial lithofacies models.

386. ROGERSON, R.J., Memorial Univ. (Earth Sciences, Geography):
Mass balance of four cirque glaciers in the Torngat Mountains, northern Labrador, 1981-.

Four years of mass balance measurement reveal very negative conditions. Despite this one glacier is advancing, but <2 m each year. Radio-echo and hammer seismic surveys reveal ice up to 170 m thick on largest glacier which is <2 km^2 in area.

HYDROGEOLOGY/HYDROGÉOLOGIE

387. CHAPUT, D., GRAHAM, B.W., JACKSON, R.E., LEIBSCHER, H., PATTERSON, R.J., DEVLIN, R., Environment Canada (National Hydrology Res. Instit.), Queen's Univ. (Geological Sciences):
Contaminants in subsurface waters, 1981-; M.Sc. thesis (Devlin).

See:

An electromagnetic survey over the Gloucester landfill site for the detection of contaminated groundwater; Geol. Surv. Can., Paper 85-1A, p. 431-440, 1985.

Contaminant hydrogeology of toxic organic chemicals at a disposal site, Gloucester, Ontario; IWD Scientific Ser. 141, Environment Canada, 1984.

To undertake research into the physical and chemical controls on contaminant migration in the subsurface, to develop methods of sampling, preservation and analysis, to estimate fluxes of contaminants to surface waters and to develop operational tools for site assessment and aquifer restoration.

388. GALE, J.E., ATKINSON, L., Memorial Univ. (Earth Sciences):
Optimizing the effectiveness of dewatering wells in fractured rocks, 1983-85; Ph.D. thesis (Atkinson).

Experimental work on a 1.5 m diameter by 3 m high physical model has been completed.

389. GALE, J.E., FRYER, B., MACKO, S., STRONG, D.F., WELHAN, J.A., HOULE, L., SCHILLEREFF, S., Memorial Univ. (Earth Sciences):
Application of groundwater flow systems to mineral exploration and toxic waste disposal, 1983-86; Ph.D. thesis (Schillereff).

A major field, laboratory and numerical model study. Covers part of the Holyrood granite. Includes physical, geochemical and isotopic studies to define the shape and configuration of the groundwater flow system in the granite and how it can be used in mineral exploration.

390. JOHNSTON, L., CRAIG, D., BOTTOMLEY, D., WEYER, K.U., INCH, I., CHEW, H., Environment Canada (National Hydrology Res. Instit.):
LRTAP (Long Range Transport of Atmospheric Pollutants) related groundwater studies – Turkey Lakes watershed, 1980-87.

See:

Neutralization of acid runoff by groundwater discharge to streams in Canadian Precambrian Shield watersheds; Hydrology, vol. 75, p. 1-26, 1984/85.

The effects of acid precipitation on groundwater chemistry is being examined. The mitigative effects of discharge of alkaline groundwaters to surface water systems has and is being determined by Isotopic methods. A long term scenario of groundwater acidification will be developed by 1987.

391. KELLER, C.K., VAN DER KAMP, G., CHERRY, J.A., Univ. Waterloo (Earth Sciences), Saskatchewan Research Council (Resources):
Flow and geochemistry of groundwater in glacial tills, Saskatchewan, 1982-86; Ph.D. thesis (Keller).

To understand groundwater flow and chemistry in glacial tills in Saskatchewan. Two research sites have been instrumented, one with fractured till and one with unfractured till. Detailed hydraulic and geochemical tests are on-going.

392. McANDREWS, J.H., McCARTHY, F., Univ. Toronto (Geology):
Late Holocene palaeohydrology of Lake Ontario, 1984-86; M.Sc. thesis (McCarthy).

To document transgression caused by coupling of upper lakes.

393. RAVEN, K.G., NOVAKOWSKI, K.S., ROULEAU, A., Environment Canada (National Hydrology Res. Instit.):
Groundwater flow and transport in fractured low-permeability rock, 1981-.

See:

Field investigations of the solute-transport properties of fractures in a monzonitic gneiss; Proc. Internat. Groundwater Symp., Montreal, May 1984, Internat. Assoc. Hydrogeologists.

We are developing and evaluating different methods for characterizing the groundwater flow and solute transport properties of fractured low-permeability rocks. Detailed field studies are carried out on the property of the Chalk River Nuclear Laboratories, Chalk River, Ontario. Field studies include groundwater sampling, and hydraulic and tracer testing and monitoring.

394. ROULEAU, A., RAVEN, K.G., NOVAKOWSKI, K.S., Environment Canada (National Hydrology Res. Instit.):
Fracture system characterization and simulation for groundwater flow and transport applications, 1984-86.

See:

Statistical characterization and numerical simulation of a fracture system for hydrogeological purposes; Proc. Internat. Groundwater Symp., Montreal, May 84, Internat. Assoc. Hydrogeologists.

We develop and apply field and numerical methods for including the variability and the discrete nature of the fracture system in fractured rock hydrogeology. A stochastic discrete fracture approach is used in site-specific numerical simulations of ground water flow and transport. The effects of uncertainties on input parameters are investigated.

395. VAN DER KAMP, G., MAATHUIS, H., Saskatchewan Research Council (Resources):
Aquifer evaluation, Saskatchewan.

See:

Evaluating the influence of groundwater flow systems on geothermal conditions; Proceedings of Energex '84, p. 297-301, Pergamon Press, 1984.

Theory of groundwater flow in the vicinity of brine ponds and salt tailings piles; Saskatchewan Research Council, Tech. Rept. No. 152, 1984.

To arrive at an improved understanding of groundwater in the hydrogeologic setting of Saskatchewan: includes studies of groundwater contamination around waste disposal ponds, numerical modelling studies to evaluate aquifer yields, studies of interactions between groundwater and heat flow with regard to geothermal energy and heat storage, studies of pump test methodology, well-field design, and groundwater chemistry.

396. VAN EVERDINGEN, R.O., Environment Canada (National Hydrology Res. Instit.):
Influence of Diefenbaker Lake on groundwater levels, 1965-1985.

Filling of the Diefenbaker Lake reservoir on the South Saskatchewan River started in 1963; early effects during the period 1965-1970 were interpreted in a 1972 report. Long-term changes are the subject of the current study.

397. VAN EVERDINGEN, R.O., BANNER, J.A., Environment Canada (National Hydrology Res. Instit.):
Northern groundwater and engineering problems related to groundwater flow, 1979-.

See:

Ground movements and dendrogeomorphology in a small icing area on the Alaska Highway, Yukon; Proc. 4th Internat. Conf. on Permafrost, National Acad. Sci., p. 1292-1297, 1984.

$\delta^{34}S$ variations in vegetation and soil exposed to intense biogenic sulphide emissions near Paige Mtn., N.W.T., Canada; Water, Air and Soil Pollution, vol. 23, p. 61-67, 1984.

A large groundwater discharge area just north of Beaver Creek, Yukon, and the formation of icings in a small creek crossed by the Alaska Highway east of Donjek River, Yukon, are the current main subjects of this study.

398. VAN EVERDINGEN, R.O., BANNER, J.A., Environment Canada (National Hydrology Res. Instit.):
Thermal springs in Rocky Mountain National Parks, 1980-.

See:

Dirty-water events at Rocky Mountain hot springs and their correlation with other short-lived phenomena; Can. J. Earth Sci., vol. 21, no. 9, p. 997-1007, 1984.

Monthly sampling was started in May 1984 at Miette Hot Springs (Jasper National Park) and Radium Hot Springs (Kootenay National Park) to provide background data on chemistry and abundances of environmental isotopes for comparison with samples collected during unusual discharge events.

MARINE GEOSCIENCE/OCÉANOGRAPHIE

399. BARRETT, T.J., TAYLOR, P., JARVIS, I., LUGOWSKI, J., FRIEDRICHSEN, H., Univ. Toronto (Geology):
Elemental and isotope geochemistry of hydrothermal metalliferous sediments from the East Pacific, 1981-86.

See:

Elemental and isotopic composition of some metalliferous and pelagic sediments from the Galapagos mounds area, DSDP Leg 70; Chem. Geol., vol. 36, p. 275-288, 1984.

Future studies on hydrothermal deposits from the East Pacific include: 1) further examination of metalliferous sediments from the Galapagos mounds area, DSDP Leg 70, and 2) investigation of metalliferous phases in sediments dredged during a transect of the Juan de Fuca Ridge planned for the summer of 1985.

400. BLASCO, S.M., Geol. Surv. Can.:
Surficial geology of Lomonosov Ridge, Arctic Ocean, 1978-.

401. BUCKLEY, D.E., Geol. Surv. Can.:
Environmental geology of the deep ocean, 1979-.

402. CARBOTTE, S., FARRAR, E., DIXON, J.M., RIDDIHOUGH, R.P., Queen's Univ. (Geological Sciences), Pacific Geoscience Centre:
A geophysical study to determine the structure of the J. Tuzo Wilson knolls off northern Vancouver Island, northeast Pacific Ocean, 1984-86; M.Sc. thesis (Carbotte).

To compile geophysical data (magnetic, gravity, seismic reflection profiles, Seamarc II acoustic imagery, high resolution bathymetry) collected over the J. Tuzo Wilson Knolls in the northeast Pacific Ocean and to determine the nature/structure of these features and their relationship to the recent plate tectonic history of the region.

403. CHASE, R.L., MICHAEL, P.J., SHEA, G.T.F., DENTON, A.W.S., SCOTT, S.D., BARRETT, T.J., Univ. British Columbia (Geological Sciences, Oceanography), Univ. Toronto (Geology):
N.E. Pacific divergent plate margins; petrology, tectonics, mineral deposits, 1982-86; M.Sc. theses (Shea, Denton).

See:

Hydrothermal vents on an axial seamount of Juan de Fuca Ridge; Nature, January, 1985.

Two cruises completed 1984; 1 cruise planned May 1985; 2 cruises planned summer 1986: Program includes dredging, camera tows and submersible dives.

404. FORBES, D.L., Geol. Surv. Can.:
Sediment dynamics and depositional processes in the Coastal Zone, 1982-.

405. GREENWOOD, B., MITTLER, P.R., GHIONIS, G., Univ. Toronto (Geography, Geology):
Sediment transport in a barred nearshore environment, 1976-; M.Sc. theses (Mittler, Ghionis).

See:

Waves, currents, sediment flux and morphological response in a barred nearshore system; Marine Geology, vol. 60, p. 31-61, 1984.

Sediment flux and equilibrium slopes in a barred nearshore; ibid., p. 79-84, 1984.

Methods are being investigated whereby sediment transport vectors can be determined in the case of complex bathymetry. Relationships between high-energy storm-wave conditions and equilibrium bar forms are being explored.

406. GREENWOOD, B., SHERMAN, D.J., BAUER, B., Univ. Toronto (Geography, Geology):
Nearshore hydrodynamics, 1980-; Ph.D. theses (Sherman, Bauer).

Empirical studies of water motion under shoaling and breaking waves using arrays of wave and current sensors co-ordinated through a mini-computer based data acquisition system. The objective is to provide a test for existing theory and a data base for new theory on wave and current dynamics in the nearshore zone.

407. HANNINGTON, M.D., SCOTT, S.D., Univ. Toronto (Geology):
Mineralogy and geochemistry of sulfide/sulfate spires, axial seamount, Juan de Fuca Ridge, 1983-85; M.Sc. thesis (Hannington).

See:

Hydrothermal vents on an axis seamount of the Juan de Fuca Ridge; Nature, vol. 313, p. 212-214, 1985.

Seafloor polymetallic sulfide deposits: modern and ancient; Marine Mining, vol. 5, no. 2, 1985.

Axial seamount: geological map of vent field; detailed mineralogy and paragenesis; Au enrichment; sulfur, oxygen, and lead isotopes; fluid inclusions. Southern Explorer Ridge: detailed mineralogy and paragenesis; comparison to axial seamount.

408. HAY, A.E., COLBOURNE, E., MERCER, D., SHENG, J., Memorial Univ. (Earth Sciences):
Acoustic remote sensing and the sedimentology of Arctic fjords, 1982-85; M.Sc. theses (Colbourne, Mercer, Sheng).

See:

Remote acoustic imaging of the buoyant plume from a submarine spring in an Arctic fjord; Science, vol. 225, p. 1154-1156, 1984.

Quantitative analysis of acoustic data in progress (with E. Colbourne), paper submitted on theory of scattering and viscous absorption in suspensions (with D. Mercer), comparison of theory with experimental data in progress (with J. Sheng), analysis of side-scan and bathymetric data in progress (with J. Syvitski, AGC).

409. JACKSON, H.R., Geol. Surv. Can.:
Surficial geology and crustal structure of the Alpha Ridge, Arctic Ocean, 1981-.

410. JOSENHANS, H.W., Geol. Surv. Can.:
Surficial geology, geomorphology and glaciology of the Labrador Shelf, 1981-.

411. KARROW, P.F., LEWIS, C.F.M., ANDERSON, T.W., ZILANS, A., Univ. Waterloo (Earth Sciences), Geol. Surv. Can.:
Limnogeology, Mackinac Basin, northwestern Lake Huron, 1983-; M.Sc. thesis (Zilans).

Geophysical records collected by G.S.C. are being studied along with cores to deduce sediment history of the basin.

412. KOBLUK, D.R., Univ. Toronto (Geology):
Geology and ecology of open framework reef cavities, leeward reef of Bonaire, Netherlands Antilles, 1978-.

A study of the reef interior ecosystem, emphasizing skeleton-secreting organism groups, bioerosion, and cavity processes.

413. KOBLUK, D.R., Univ. Toronto (Geology):
Cryptic organisms in intertidal reef flat and back reef habitats, Malololailai Island, western Fiji islands, 1984-.

A study of the major invertebrate living groups living in framework and shelter cavities within the intertidal reef flat and back reef zones of a moderate energy Pacific coral reef.

414. LEWIS, C.F.M., Geol. Surv. Can.:
Ice scouring of Continental Shelves, 1979-.

415. LEWIS, C.F.M., Geol. Surv. Can.:
Engineering geology of the Atlantis shelf, 1983-.

416. LOGAN, A., Univ. New Brunswick, Saint John (Geology):
Intraspecific competition in Holocene and Pleistocene reef corals from Bermuda, Cayman Islands and Barbados, 1985-.

See:

Interspecific aggression in hermatypic corals from Bermuda; Coral Reefs, vol. 3, p. 131-138, 1984.

417. MAASS, O., DALRYMPLE, R.W., Queen's Univ. (Geological Sciences):
Lithostratigraphy and clay mineralogy of the CESAR cores, 1983-85.

The research is examining the stratigraphic variation in the mineralogy of the clay size fraction (<2 μ) in a representative CESAR core in an attempt to shed light on the changes in sediment source and/or transport mechanisms over the last 4.5 Ma.

418. McCONACHY, T.F., MOTTL, M.J., SCOTT, S.D., Univ. Toronto (Geology), Woods Hole Oceanographic Instit.:
Geochemistry and hydrodynamics of hydrothermal plumes at ocean spreading ridges, 1984-87; Ph.D. thesis (McConachy).

Samples of hydrothermal plumes from 11°36'N EPR and Explorer Ridge are being analyzed for the purpose of determining the fate of the metal content of the dispersed plume in the seawater column.

419. MacLEAN, B., Geol. Surv. Can.:
Eastern Baffin Island shelf bedrock and surficial geology mapping program, 1976-.

420. PETER, J.M., SCOTT, S.D., Univ. Toronto (Geology):
Mineralogy and geochemistry of hydrothermal precipitates, Guaymas Basin, Gulf of California, 1983-85; M.Sc. thesis (Peter).

Detailed mineralogical study using reflected and transmitted light microscopy, X-ray diffraction, electron microprobe analysis, and scanning electron microscopy; bulk chemical analysis of mound and chimney samples by XRF, NAA, etc.; fluid inclusion microthermometry and salinity measurements; S, C, O and Pb isotopic analyses.

421. PIPER, D.J.W., Geol. Surv. Can.:
Quaternary geologic processes on Continental slopes, 1981-.

422. PIPER, D.J.W., Geol. Surv. Can.:
Facies models of modern turbidites, 1983-.

423. SCHAFER, C.T., Geol. Surv. Can.:
Temporal and spatial variation of deep ocean currents in the western Labrador Sea, 1983-.

424. SCOTT, S.D., CHASE, R.L., Univ. Toronto (Geology), Univ. British Columbia (Geological Sciences):
Young seamounts of the northeast Pacific Ocean, 1983-86.

We are studying tectonic, volcanic and hydrothermal processes of young seamounts (e.g. axial) and actively spreading ridges (e.g. Explorer) by surface ships and PISCES IV submersible.

425. TAYLOR, R.B., Geol. Surv. Can.:
Coastal environments and processes in the Canadian Arctic Archipelago, 1982-.

See:

Coastal surveys, Jones Sound, District of Franklin; Geol. Surv. Can., Paper 84-1B, p. 25-32, 1984.

MINERAL/ENERGY GEOSCIENCE/SCIENCES DE LA TERRE APPLIQUÉES AUX MINÉRAUX ET À L'ÉNERGIE

COAL GEOLOGY/ GÉOLOGIE DU CHARBON

426. CAMERON, A.R., Geol. Surv. Can.:
Petrographic examination of coking coals from the Kootenay Formation, Alberta and British Columbia, 1961-.

See:

Petrographic examination of low-rank coals from Saskatchewan and British Columbia, Canada, including reflected and fluorescent light microscopy, SEM, and laboratory oxidation procedures; Can. J. Earth Sci., vol. 21, no. 11, p. 1209-1228, 1984.

427. CAMERON, A.R., Geol. Surv. Can.:
Petrographic analysis of Saskatchewan lignites, 1972-.

428. CAMERON, A.R., Geol. Surv. Can.:
Relationship of reflectance to chemical rank parameters of western Canadian coals, 1979-.

429. CAMERON, A.R., Geol. Surv. Can.:
Regional coal rank variations in the Kootenay Formation and their relationship to the structural history of the southern Canadian Rocky Mountains, British Columbia-Alberta, 1981-.

430. CAMERON, A.R., Geol. Surv. Can.:
Petrographic analyses of coals in the Saunders Group, Outer Foothills Belt, Alberta, 1983-.

431. DAWSON, F.M., Geol. Surv. Can.:
Resource evaluation and geology of coal deposits of western Canada, 1976-.

432. GOODARZI, F., Geol. Surv. Can.:
Compositional characteristics of coals from Hat Creek, British Columbia, 1977-.

433. GOODARZI, F., Geol. Surv. Can.:
Mineral matter and trace element content of Canadian coals, Alberta, 1978-.

434. HACQUEBARD, P.A., Geol. Surv. Can.:
Rank and petrographic studies of coal and organic matter dispersed in sediments, 1968-.

See:

Geological and geothermal effects on coal rank variations in the Carboniferous basin of New Brunswick; Geol. Surv. Can., Paper 84-1A, p. 17-28, 1984.

435. HUGHES, J.D., Geol. Surv. Can.:
Resource evaluation and geology of Canada's coal deposits, 1981-.

436. HYDE, R.S., BURDEN, E., HISCOTT, R.N., MILLER, H.G., WRIGHT, J.A., VON BITTER, P.H., DEAN, P.L., KILFOIL, G., PEAVEY, S.T., SOLOMON, S., Memorial Univ. (Earth Sciences), Royal Ontario Mus. (Invert. Pal.), Newfoundland Dept. Mines and Energy:
Fossil fuel potential of Carboniferous Basins in western Newfoundland, 1982-86; M.Sc. theses (Kilfoil, Peavey, Solomon).

See:

Stratigraphy and sedimentology of some coal seams in the Carboniferous Bay St. George Basin, southwestern Newfoundland; Newfoundland Dept. Mines Energy, Report 85-1, p. 168-181, 1985.

Thermal maturation in a Carboniferous wrench graben: the Bay St. George Basin; Geol. Assoc. Can.-Mineral. Assoc. Can., Programme with Abstracts, vol. 10, p. A29, 1985.

Fossil fuel potential of Carboniferous basins of western Newfoundland; Programme with Abstracts, Can. Soc. Expl. Geophysicists/Can. Soc. Petrol. Geol. Ann. Mtg., Calgary, 1984.

To better assess the fossil fuel potential of Carboniferous basins (particularly Bay St. George Basin) in western Newfoundland. Work involving geophysics (gravity, magnetics, seismic, heat flow) and geology (sedimentology, tectonics, thermal maturation studies, coal petrography) is ongoing.

437. JERZYKIEWICZ, T., Geol. Surv. Can.:
Sedimentological studies of coal-bearing Upper Cretaceous and Paleocene formations, central Alberta Foothills, 1981-.

See:

Preliminary observations on pock marks and fractured pebbles in the Upper Cretaceous and Paleocene of the Central Alberta Foothills near Hinton; Geol. Surv. Can., Paper 84-1B, p. 263-267, 1984.

438. KALKREUTH, W.D., Geol. Surv. Can.:
Optical properties of coals and dispersed organic materials, 1975-.

439. KALKREUTH, W.D., Geol. Surv. Can.:
An investigation of the semi-inert constituents of western Canadian coals, 1979-.

440. KALKREUTH, W.D., Geol. Surv. Can.:
Evaluation of liquefaction potential of low rank coals and peats, 1981-.

441. KALKREUTH, W.D., Geol. Surv. Can.:
Regional coalification studies in the Minnes, Bullhead and Fort St. John groups, northeastern British Columbia, 1981-.

442. KOO, J., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Geoscientific evaluation of Telkwa and Red Rose coal measures in northwestern British Columbia, 1982-85.

To evaluate economic coal resource potential of the Telkwa and Red Rose coal measures.

443. KOO, J., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Geoscientific evaluation of Klappan coal measures in northwestern British Columbia, 1983-87.

See:

Coal geology of the Mt. Klappan area in northwestern British Columbia; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 342-351, 1985.

To evaluate economic coal resource potential of the Klappan coal measure.

444. RICKETTS, B.D., Geol. Surv. Can.:
Studies of coal basins of western and northern Canada, 1977-.

See:

Volcanic breccias in the Isachsen Formation near Strand Fiord, Axel Heiberg Island, District of Franklin; Geol. Surv. Can., Paper 85-1A, p. 609-612, 1985.

445. SMITH, G.G., Geol. Surv. Can.:
Resource evaluation and geology of coal deposits of western and northern Canada, 1983-.

446. WHITE, G.V., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Seeley Lake coal prospect, British Columbia, 1984.

See:

The Seeley Lake coal prospect (93M/4E); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 85-1, p. 213-218, 1985.

To investigate a known coal occurrence at Seeley Lake, British Columbia (93M/4E). Property was mapped and diamond drill core examined.

INDUSTRIAL MINERALS/SUBSTANCES MINÉRALES INDUSTRIELLES

447. AUBERTIN, R., Québec Ministère Énergie et Ressources:
Minéraux industriels de la région de l'Outaouais, Québec, 1984-85.

Le chercheur a effectué dans le cadre de ce projet un inventaire et une évaluation préliminaire de gîtes ou d'indices de diopside et de wollastonite.

448. BUTEAU, P., Québec Ministère Énergie et Ressources:
Inventaire des tourbières de l'Abitibi, Québec, 1984-85.

Définir les groupements végétaux et établir la stratification des dépôts de tourbe. Evaluer qualitativement et quantitativement les dépôts de tourbe; définir les zones à potentiel économique.

449. BUTEAU, P., AUDET, H., Québec Ministère Énergie et Ressources:
Cartographie des tourbières à partir d'images Landsat, 1984-85.

Evaluation de différentes méthodes de cartographie et classification des modèles physionomiques à l'aide d'images-satellites au-dessus d'un territoire-cible. Production de cartes préliminaires de classification; travaux de terrain.

450. CHRISTIE, R.L., Geol. Surv. Can.:
Geology of bedded phosphate deposits in Canada, 1976-.

451. DEAN, P.L., MEYER, J.R., Newfoundland Dept. Mines and Energy:
Labrador industrial minerals, 1984-85.

See:

Industrial minerals in Labrador West; Newfoundland Dept. Mines and Energy, Report 85-1, p. 1-3, 1985.

To document silica and dolomite deposits in Labrador West.

452. EDWARDS, W.A.D., Alberta Research Council (Geol. Surv.):
Aggregate resources of the Carrot Creek area, Alberta, 1983-85.

Aggregate resource study of the 1:50 000 NTS Sheet 83G/12 (Carrot Creek) area, Alberta surveyed in 1983.

453. EDWARDS, W.A.D., Alberta Research Council (Geol. Surv.):
Aggregate resources of the Drumheller area, Alberta, 1983-85.

This map is one of a series of reconnaissance-level aggregate potential maps (at a scale of 1:250 000) derived primarily from existing surficial geology information; to provide aggregate resource data for general land-use planning, land management or aggregate exploration until such time as more detailed maps or reports are available for the area.

454. EDWARDS, W.A.D., HUDSON, B., Alberta Research Council (Geol. Surv.):
Aggregate supply and demand study, east-central Alberta, 1982-84.

455. HÉBERT, Y., Québec Ministère Énergie et Ressources:
Géologie des gîtes de talc et stéatite des Cantons de l'Est du Québec, 1984-85.

Inventorier les gîtes et indices de talc associés à la ceinture de serpentine du sud du Québec; étudier le contexte géologique et structural des gîtes exploités. Les travaux de cet été ont porté sur les gîtes associés au feuillet de Pennington. Les autres secteurs seront étudiés l'an prochain.

456. HORA, Z.D., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Barite deposits of British Columbia, 1980-86.

Evaluation of the resource potential; inventory of the resource. Fieldwork completed.

457. HORA, Z.D., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Silica resources of British Columbia, 1981-86.

Inventory of the resource; quantitative and qualitative evaluation of the deposits. Field-work completed.

458. HOWSE, A., DEAN, P.L., Newfoundland Dept. Mines and Energy:
Evaluation of Newfoundland barite deposits, 1982-84.

See:

Barite evaluation in three areas of south-eastern Newfoundland; Newfoundland Dept. Mines and Energy, Report 84-1, p. 263-266, 1984.

Project is completed and final report is being prepared for publication in 1985.

459. KING, M., Nova Scotia Dept. Mines and Energy:
Gypsum property ownership and leases, 1983-84.

460. KWONG, K.P., MARTINI, I.P., Univ. Guelph (Land Resource Science):
Shale and clay resources of southern Ontario, 1984-87.

Shale and clay of southern Ontario have been used in the past for brick and draining tiles. Future markets may require a change to "construction tiles" manufacturing. The chemical mineralogical and ceramic properties of several Holocene clays, and Paleozoic shales, primarily of the Queenston Formation, are suitable for such industry. The quality and behaviour of the different materials are dependent on the environment of sedimentation they were formed, the carbonate and sulphate content and their degree of weathering.

461. LOCAT, J., CHAGNON, J-Y., Université Laval (Géologie):
Inventaires des granulats de la province de Québec, 1984-86.

Définir et mettre au point une méthode d'inventaire de granulats applicable au Québec; l'appliquer à des régions choisies. Revue de la littérature sur le sujet; préparation d'un guide d'inventaire.

462. MACDONALD, D.E., MORTON, R.D., Alberta Research Council (Geol. Surv.):
Phosphate evaluation study, 1978-85.

463. NANTEL, S., Québec Ministère Énergie et Ressources:
Zones potentielles pour l'exploitation de la pierre de taille; Région de Chibougamau, Québec, 1984-85.

Etude de complexes ignés en vue d'identifier des zones potentielles pour l'exploitation de la pierre de taille à des fins architecturales ou ornementales.

464. RILEY, J.L., Ontario Geol. Surv.:
Peatland inventory project, Ontario, 1981-86.

See:

Ontario Geol. Surv., Misc. Paper 119, p. 110-116, 1984.

During 1984, reports on the seven areas studied in the previous year were released, and field studies were undertaken in a further five study areas; Dryden-Lac Seul, Sioux Lookout, Longlac-Nakina, Cochrane-Kapuskasing, and Timmins-Kirkland Lake.

465. SEAMAN, A.A., THIBAULT, J., New Brunswick Dept. Nat. Res. (Geol. Surv. Br.):
Granular aggregate resources of the central New Brunswick lowlands, 1984-85.

To identify sources of surficial granular aggregate within the New Brunswick Lowlands, and to evaluate the quantity and quality of the material.

466. SIMPSON, M.A., SCHREINER, B.T., Saskatchewan Research Council (Resources):
Aggregate inventory of Saskatchewan, 1982-.

To obtain an inventory of the aggregate resources of selected areas in Saskatchewan: this involves reconnaissance level mapping at 1:250 000 scale to delineate areas of potential aggregate resources, combined with known aggregate locations. Detailed work is being done around major population centres such as Saskatoon. Maps of 1:30 000 show aggregate deposits and include notes on quantities, quality, constraints, etc. A computer data base of aggregate formation supplements the information on the aggregate maps. Ground investigations are carried out by pit inspection, sampling, augering and geophysics.

467. SPRINGER, J.S., Ontario Geol. Surv.:
Graphite resources in Ontario, 1984-87.

468. SPRINGER, J.S., Ontario Geol. Surv.:
Vermiculite resources in Ontario, 1984-87.

469. TREMBLAY, A., SIMANDL, G., Québec Ministère Énergie et Ressources:
Gîtes de graphite du Grenville, Québec, 1984-85.

Inventaire des principaux gîtes et indices de graphite connus au Québec. Cartographie détaillée des gîtes sélectionnés.

470. VOS, M.A., Ontario Geol. Surv.:
Ceramic raw materials in Ontario, 1984-86.

See:

Granite and anorthosite as ceramic raw materials; Ontario Geol. Surv., Misc. Paper 119, p. 252-255, 1984.

471. VOS, M.A., Ontario Geol. Surv.:
Building stone resources in Ontario, 1984-87.

MINERAL DEPOSITION EXPLORATION/ EVALUATION/RECHERCHE ET ÉVALUATION DES GÎTES MINÉRAUX

472. ALLDRICK, D.J., SINCLAIR, A.J., ARMSTRONG, R.L., GODWIN, C.I., Univ. British Columbia (Geological Sciences):
Metallogeny of the Stewart Mining Camp, British Columbia, 1983-87; Ph.D. thesis (Alldrick).

See:

The Prosperity/Porter Idaho silver deposits (103P/13); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1984-1, p. 165-172, 1984.

Analysis of the formation of the major gold, silver-gold, and silver vein deposits hosted in Triassic subaerial volcanic stratigraphy.

473. ANDREWS, A.J., Ontario Geol. Surv.:
Studies of gold deposits in the Red Lake area, Ontario, 1981-86.

See:

Alteration, metamorphism and structure associated with Archean, volcanic-hosted gold deposits, Red Lake District; Ontario Geol. Surv., Misc. Paper 119, p. 162-166, 1984.

474. BACHINSKI, D.J., KETTLES, K., Univ. New Brunswick (Geology):
Mafic volcanic associated Fe-Cu-Zn sulfide mineralization in the 'ophiolitic' Fournier Group, northern New Brunswick, 1984-.

475. BACHINSKI, D.J., MITTON, B., Univ. New Brunswick (Geology):
Endogranitic Sn mineralization, central New Brunswick, 1984-.

476. BARRIE, C.P., NALDRETT, A.J., Univ. Toronto (Geology):
Petrogenesis of the Kamiskotia Gabbroic Complex and other mafic/ultramafic intrusions in Ontario, 1984-88; Ph.D. thesis (Barrie).

Since field work conducted in the Kamiskotia area during the summer of 1984, a geologic map has been compiled from all previous mapping and observations have been made

from thin section analysis. It is evident that the Kamiskotia complex is severed into two discrete bodies by later sodium-rich felsic intrusions, and that the complex geology precludes any reasonable systematic detailed petrogenetic studies in terms of fractionation/assimilation/magma injection trends. Detailed field mapping in the southwestern corner of the intrusion, where concrete bonding and net-textured sulfides are present in anorthosite-troctolite units, may clear up questions about the cincerdence or discerdence of the intrusion within host basalts, and the stratigraphic position of these rocks within the gabbroic complex. Rare earth element geochemistry of fifteen mafic intrusive rocks and five overlying basalts, coupled with whole rock and rare earth element data from Hart (1984) will supplement geologic relationships between the gabbroic complex and the basalts. Whole rock Sr-Nd systematics and U-Pb zircon systematics are being considered for study, to age date the complex, and to characterize the mantle source from which the intrusion is derived.

Four other Archean intrusions are being considered for REE, and Sr-Nd + U-Pb isotopic studies. Dore Lake Complex, Chibougamau, Quebec; Dundonald Sill, Ontario; Kakagi Lake Sill, Northwest Ontario, and Big Trout Lake Complex, Northern Ontario. These intrusions range from anorthositic (Dore Lake Complex) to oicritic (Dundonald Sill, Kakagi Lake Sill), and thus geochemically bracket the Kamiskotia Gabbroic Complex. The geochemical and isotopic studies are designed to document their mantle source region and subsequent petrogenesis.

477. BAZINET, R., TRUDEL, P., Ecole Polytechnique (Génie minéral):
Evaluation du potentiel minéral des grands axes conducteurs identifiés par les relevés Input en Abitibi, Québec, 1983-86.

Voir:

Lithogeochemistry of the Blondeau and Gilman Formations in the Chibougamau area, Quebec; CIMM Spec. Vol. 30, p. 120-136, 1984.

Les levés sur le terrain se poursuivront au cours de l'été 1985, et un rapport final portant sur les résultats de ce projet de recherche sera remis au ministère de l'Énergie et des Ressources du Québec environ un an plus tard.

478. BELL, R.T., Geol. Surv. Can.:
Geology of uranium resources of Canada, 1975-.

See:

Uranium in the Circum-Ungava Belt, northern Quebec and Labrador: new information from the central Labrador Trough; Geol. Surv. Can., Paper 85-1A, p. 145-149, 1985.

479. BOUCHER, M., GAUTHIER, M., Université du Québec à Montréal (Sciences de la terre):
Minéralisations en Plomb et Zinc de la région de Dunham, Conté de Missisquoi (Québec du sud), 1983-85; thèse de maîtrise en sciences (Boucher).

Voir:

Minéralisations Plombo-Zincifère de la région de Dunham; Québec Ministère Énergie et Ressources, DP. 84-07, 1985.

Minéralisations Plombo-Zincifère de la région de Dunham; Québec Ministère Énergie et Ressources, MB. 84-02, 1985.

Etude de la gitologie des indices de plomb et de zinc de la dolomie de la formation de Dunham afin d'établir un modèle gitologique.

480. CHARTRAND, F., BROWN, A., Ecole Polytechnique (Génie minéral):
La mise en place diagénétique de la minéralisation stratiforme de cuivre à Redstone, T.N.-O. et à Kamoto, Zaire, 1980-85; thèse de doctorat (Chartrand).

Voir:

Diagenetic origin of stratiform copper mineralization, Redstone area, N.W. Territories, Canada; Economic Geology, vol. 80, no. 2, 1985.

La recherche concerne la définition détaillée de la mise en place de la minéralisation stratiforme de cuivre à Redstone, T.N.-O. et de son analogue à Kamoto, Zaire. Un modèle diagénétique dans une série red-bed/sabkhas s'applique. Le mémoire de thèse est dû en automne 1985.

481. CHERRY, M.E., Ontario Geol. Surv.:
The association of gold with felsic intrusions in the Abitibi greenstone belt, Ontario, 1981-85.

482. CHERRY, M.E., Ontario Geol. Surv.:
Lithophile mineralization in Archean granitoids, 1983-87.

483. CHEVÉ, S., BROWN, A., TRZCIENSKI, W., Ecole Polytechnique (Génie minéral):
La métallogénie de la minéralisation Cu-Zn stratiforme, région de Mégantic, Cantons de l'Est, Québec, 1974-85; thèse de doctorat (Chevé).

L'étude propose une affiliation de la minéralisation stratiforme de Cu-Zn à une zone de "rift" semblable au golfe de Californie. Le mémoire de thèse est dû au printemps 1985.

484. CHEVÉ, S., SCHRIJVER, K., BÉLANGER, M., INRS – Géoressources, Québec Ministère Énergie et Ressources:
Métallogenie de la région des Lacs Romanet et Dunphy, Fosse du Labrador, Nouveau-Québec, 1982-86.

Voir:

Typologie des indices minéralisés des secteurs des lacs Romanet et Dunphy, Fosse du Labrador; Québec Ministère Énergie et Ressources, DV 84-18, p. 99-119, 1985.

Une comprehension des métallotectes dans la région des lacs Romanet et Dunphy, Fosse du Labrador.

485. CHORLTON, L.B., BROWN, H., Ontario Geol. Surv.:
Geological setting of gold mineralization in the Shebandowan greenstone belt, Wawa Subprovince, northwestern Ontario, 1984-86.

See:

Gold mineralization in the Shebandowan area; Ontario Geol. Surv., Misc. Paper 119, p. 201-207, 1984.

486. CHURCH, B.N., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Geology and mineral deposits of the Greenwood area, British Columbia.

See:

Geology of the Mount Attwood-Phoenix area, Greenwood, British Columbia; British Columbia Ministry Energy, Mines, Petrol. Res., Geological Paper 1985-1, p. 17-21, 1985.

487 CLARK, T., BÉLANGER, M., Québec Ministère Énergie et Ressources:
Métallogénie de la Fosse du Labrador, Nouveau-Québec, 1984-85.

Voir:

Typologie des minéralisations de la région de la Fosse du Labrador (résumé); Québec Ministère Énergie et Ressources, DV 84-18, p. 67-68, 1984.

La géologie et les mineralisations de la vallée Mistamisk-Romanet (parties ouest et nord); ibid., p. 73-97, 1984.

Objectif: compréhension de métallotectes dans la Fosse du Labrador.

488. COLVINE, A.C., ANDREWS, A.J., CHERRY, M.E., MACDONALD, A.J., MARMONT, S., SPRINGER, J.S., TROOP, D.G., Ontario Geol. Surv.:
The geology of Archean gold deposits of Ontario, 1981-86.

A major program, involving geologists of the Ontario Geological Survey and university and industrial personnel.

489. DAVIES, J.C., SMITH, P.M., Ontario Geol. Surv.:
Study of gold occurrences in the Lake of the Woods area, northwestern Ontario, 1983-85.

See:

Structural and stratigraphic control of gold in the Lake of the Woods area; Ontario Geol. Surv., Misc. Paper 119, p. 185-193, 1984.

490. DESRIVIÈRES, J., BROWN, A., Ecole Polytechnique (Génie minéral):
Etude de l'intrusif et de la minéralisation des collines Gemini et St-Eloi, Canton Desbones, région de l'Abitibi, Québec, 1983-85; M.Sc.A. (Desrivières).

La caractérisation des indices aurifères en marge d'un pluton granitoide: la composition chimique, la minéralogie, l'altération, la nature du fluide minéralisateur. Le mémoire de thèse est dû au printemps 1985.

491. DiLABIO, R.N.W., Geol. Surv. Can.:
Drift prospecting methods and models, 1978-.

See:

Gold abundances vs. grain size in weathered and unweathered till; Geol. Surv. Can., Paper 85-1A, p. 117-122, 1985.

492. DUNSMORE, H.E., Geol. Surv. Can.:
Geology of uranium resources of Canada, 1976-.

493. DUSSAULT, C., DARLING, R., Ecole Polytechnique (Génie minéral):
Ore mineralogy, Ferderber Zone, Belmoral Mine, Val d'Or, Québec, 1983-85; M.Sc.A. (Dussault).

494. EASTON, R.M., Ontario Geol. Surv.:
Rare-earth, Y, Zr and Nb deposits of the Grenville Province, Ontario, 1984-88.

Evaluation of REE and related element mineralization in the Central Metasedimentary Belt of the Grenville Province, Ontario; in particular REE mineralization associated with metasomatic iron deposits.

495. FARR, J.E., SCOTT, S.D., Univ. Toronto (Geology):
Geology, mineralogy and geochemistry of the 070 faults, Corbet Mine, Noranda, Québec, 1984; M.Sc. thesis (Farr).

The 070 veins are long-lived synvolcanic structures. Alteration mineralogy and chemical changes in host rocks are typical of those produced by hot saline fluids.

496. GANDHI, S., Geol. Surv. Can.:
Geology of uranium resources of Canada, British Columbia, District of Mackenzie, 1977-.

See:

Galena-sphalerite-chalcopyrite veins in Aphebian dolomite and Archean basement at Artillery Lake, Northwest Territories; Geol. Surv. Can., Paper 84-1B, p. 33-40, 1984.

Geology of the Artillery Lake Pb-Zn-Cu district, District of Mackenzie; Geol. Surv. Can., Paper 85-1A, p. 359-363, 1985.

497. GAUTHIER, M., Université du Québec à Montréal (Sciences de la terre):
Synthèse métallogénique de l'Estrie et de la Bauce (Québec du Sud), 1984-86.

Etude de la gitologie des indices, des gites et des gisements des Appalaches du sud-ouest afin d'établir des modèles gitologiques en liaison avec la stratigraphie et la structurographie.

498. GILBERT, M., HUBERT, C., DARLING, R., Ecole Polytechnique (Génie minéral):
Geology of the Lac Pelletier gold prospect, Rouyn, Québec, 1984-85; M.Sc.A. (Gilbert).

499. GIOVENAZZO, D., LAMOTHE, D., Québec Ministère Énergie et Ressources:
Métallogenie du secteur des lacs Nuvilik, Fosse de l'Ungava, Nouveau-Québec, 1984-85.

La compréhension des métallotectes dans la Fosse de l'Ungava. Fait partie d'un projet à long terme qui a débuté en 1983.

500. GIRARD, A., CHEVÉ, S., BÉLANGER, M., INRS-Géoressources, Québec Ministère Énergie et Ressources:
Métallogenie des indices minéralisés du Lac Colombet, Fosse du Labrador, Nouveau-Québec, 1983-85.

Voir:

Géologie de la région du lac Colombet (Wapanikskan), Fosse du Labrador, Nouveau-Québec; Québec Ministère Énergie et Ressources, DP 84-09 (carte annotée), 1985.

Les indices minéralisés du lac Colombet, Fosse du Labrador, Nouveau-Québec; ibid., MB 84-06, 1985.

Une compréhension des métallotectes dans la région du lac Colombet, Fosse du Labrador.

501. GOOD, D.J., NALDRETT, A.J., Univ. Toronto (Geology):
Effects of alteration at the Bucko Lake Nickel deposit, Thompson Nickel Belt, Manitoba, 1982-85; M.Sc. thesis (Good).

The effects of serpentization and metasomatism on the petrology, geochemistry and platinum group element distribution are studied. Platinum group elements in remobilized sulfides are compared to those of primary sulfides.

502. GROSS, G.A., Geol. Surv. Can.:
Geology and evaluation of iron and manganese resources, 1957-.

503. HALE, W.E., CHAISSON, L., Univ. New Brunswick (Geology):
Controls of gold mineralization, Forest Hill, Guysborough Co., Nova Scotia, 1983-84.

504. HENDERSON, J.R., Geol. Surv. Can.:
Meguma gold in the Ecum Secum-Liscomb area, Nova Scotia, 1982-.

505. HODGSON, C.J., Queen's Univ. (Geological Sciences):
Structural geology and gold mineralization in the Kirkland Lake-Larder Lake deformation zone, 1982-85.

See:

Ontario Geol. Surv., M.P. 119, p. 220-225, 1984.

506. HODGSON, C.J., ANDERSON, P.G., Queen's Univ. (Geological Sciences):
An investigation of the Alison and Maura vein systems, Erickson gold mine, Cassiar, British Columbia, 1983-; M.Sc. thesis (Anderson).

507. HODGSON, C.J., BURK, R.R., Queen's Univ. (Geological Sciences):
The geology of the Teck-International Corona gold deposit, Hemlo, Ontario, 1983-; M.A.Sc. thesis (Burk).

508. HODGSON, C.J., CHRISTIE, B., Queen's Univ. (Geological Sciences):
Geology and genesis of a sheeted veinlet zone at the Campbell Red Lake mine, Balmertown, Ontario, 1981-85; M.Sc. thesis (Christie).

509. HODGSON, C.J., CLARK, M.E., Queen's Univ. (Geological Sciences):
The geology of the Victory gold mine, Kambalda, western Australia, 1983-; Ph.D. thesis (Clark).

510. HODGSON, C.J., HEATHER, K.B., Queen's Univ. (Geological Sciences):
The Aylwin Creek gold-copper-silver deposit, 1981-85; M.Sc. thesis (Heather).

See:

Calc-silicate alteration and associated gold-copper-silver mineralization hosted within A, (MoS_2) porphyry related breccia pipe, Aylwin Creek, southeastern British Columbia; Geol. Soc. Amer., Program with Abstracts, 1984.

511. HODGSON, C.J., HELMSTAEDT, H., HALL, R., Queen's Univ. (Geological Sciences):
Geology of Musselwhite gold deposit, Opapamiska Lake, northwestern Ontario, 1981-85; Ph.D. thesis (Hall).

512. HOY, T., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
The Purcell Supergroup in southeastern British Columbia: tectonics, sedimentation and mineral deposits, 1976-86.

The project focuses on the structural and tectonic setting of stratabound lead-zinc deposits in the Purcell Supergroup in southeastern British Columbia. A major part of the project involves production of 1:50 000 geological maps, and detailed studies of the lower part of the Purcell Supergroup succession.

513. IRRINKI, R.R., CROUSE, G.W., New Brunswick Dept. Nat. Res. (Geol. Surv. Br.):
Mineral evaluation of Stratmat deposit, New Brunswick, 1984-85.

The mineral potential of the Stratmat deposit is being evaluated using provincial assessment files and confidential mining company files. An internal confidential government report is being prepared from the information gathered.

514. JEFFERSON, C.W., Geol. Surv. Can.:
Regional mineral resource assessment, northern Canada, 1984-.

See:

Uppermost Shaler Group and its contact with the Natkusiak basalt, Victoria Island, District of Franklin; Geol. Surv. Can., Paper 85-1A, p. 103-110, 1985.

Geology and copper occurrences of the Natkusiak basalts, Victoria Island, District of Franklin; ibid., p. 203-214, 1985.

515. JOWETT, C., NALDRETT, A.J., PEARCE, G.W., Univ. Toronto (Geology):
Timing and genesis of the Kuperschiefer Cu-Ag deposits, Poland, 1984-87; Ph.D. thesis (Jowett).

The Kupferschiefer sedimentary Cu-Ag deposits in the Lubin area of southwest Poland contain reserves of over 1 billion tonnes of 1.5-2.0% Cu and 30 g Ag. The mineralization, which occurs in marine coaly shale and carbonate, and in continental sandstone below, has long been considered a classic example of a syngenetic deposit. However, crosscutting relationships, mineralized veinlets and replacement textures indicate that the origin may be late diagenetic.

A multi-discipline approach to the study of the origin of these deposits has been initiated, encompassing the fields of sedimentology, tectonics, mineralogy, petroleum geology, geophysics and physical properties. Topics of research include the lithologic and paleotopographic controls, possible source rocks for the metals, and modes of genesis as suggested by these controls. As well, paleomagnetic dating of the oxide portion of the metal zoning to determine an absolute age, formation of dilatant veinlets during mineralization by hydrofracturing which places constraints on the timing, and calculation of lateral temperature gradients due to differential thermal conductivities between basement rock and basin sediments to determine the feasibility of convective fluid flow in sandstone to explain some of the geologic controls and associations are being pursued. Finally, a plate tectonic model of formation of the tectonic environment which characterizes these deposits will explain the source rocks, paleotopographic controls, mode of genesis and timing, and will suggest the relationship between ore deposit genesis and sedimentary basin formation.

516. KEAN, B., Newfoundland Dept. Mines and Energy:
Metallogenic studies – central Newfoundland, under the Canada-Newfoundland Mineral Development Agreement, 1984-89.

See:

Metallogeny of the Tally Pond volcnics, Victoria Lake Group, central Newfoundland; Newfoundland Dept. Mines and Energy, Report 85-1, p. 89-93, 1985.

517. KEARVELL, G., CLARK, T., BÉLANGER, M., Univ. Ottawa (Géologie), Québec Ministère Énergie et Ressources:
Brèches, altérations sodiques et minéralisations de la vallée Mistamisk-Romanet, Fosse du Labrador, Québec, 1984-86; thèse de maîtrise (Kearvell).

Objectif: Caractérisation des altérations sodiques, origine des brèches; évaluation du potentiel minéral du secteur.

518. KHEANG, L., PERRAULT, G., Ecole Polytechnique (Génie minéral):
Les inclusions fluides de la minéralisation aurifère de la mine Sigma-2 et du granophyre encaissant, 1984-85.

Les objets sont de définir la nature des inclusions fluides (température de cristallisation, salinité, composition chimique, etc.) de la minéralisation aurifère et du granophyre encaissant. Il est possible que cet étude nous permette d'établir une filiation magmatique aux solutions minéralisantes.

519. KIRKHAM, R.V., Geol. Surv. Can.:
Geology of copper and molybdenum deposits in Canada, 1970-.

See:

Geology and copper occurrences of the Natkusiak Basalt, Victoria Island, District of Franklin; Geol. Surv. Can., Paper 85-1A, p. 203-214, 1985.

Base metals in Upper Windsor (Codroy) Group oolitic and stromatolitic limestones in the Atlantic Provinces; ibid., p. 573-585, 1985.

520. KISH, L., BOURQUE, Y., POLGARI, M., VALADE, M., BÉLANGER, M., Québec Ministère Énergie et Ressources:
Manganèse dans la Fosse du Labrador, Québec, 1982-86.

Objectifs: 1) Evaluer le potentiel en manganèse de la Fosse du Labrador. 2) Estimer la quantité de manganèse dans un secteur prés de Schefferville.

521. KLASSEN, R.A., Geol. Surv. Can.:
Uranium drift prospecting techniques; Lower Kazan River area, District of Keewatin, 1975-.

522. KONTAK, D.J., FARRAR, E., CLARK, A.H., Queen's Univ. (Geological Sciences):
The geological history of the Cordillera de Carabaya Region, Department of Puno, southeastern Peru: Magmatic and metallogenetic processes in an ensialic environment, 1978-84; Ph.D. thesis (Kontak).

See:

The influence of fluid and rock compositions, and tectonothermal processes on the Al-Si distribution of alkali feldspars in granitoid rocks, southeastern Peru; Bulletin de Mineralogie, vol. 107, p. 387-400, 1984.

The magmatic evolution of the Cordillera Oriental, southeastern Peru; in Andean Magmatism – Chemical and Isotopic Constraints, R.S. Harman and B.A. Barreiro, Eds., Shiva Publishing Ltd., p. 203-219, 1984.

The rift-associated Permotriassic magmatism of the eastern cordillera: a precursor to the Andean Orogeny; in Granitoid Batholiths and

related magmatism in Peru – the Andean Plate Margin, Blackie (Glasgow), p. 36-44, 1984.

A comparative study of the metallogenetic and geochronological relationships in the northern part of the central Andean tin belt, southeastern Peru and northwestern Bolivia; Proc. 6th Quadrennial IAGOD Symp., Schweizebartische Verlagsbuchtandlung, Stuttgart, Germany, p. 269-279, 1984.

523. KWONG, Y.T.J., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Petrology of the Tillicum Mountain gold prospect, British Columbia, 1983-85.

See:

The Tillicum Mountain gold prospect – a petrologic update (82F/13); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 22-34, 1985.

Update on petrology and genesis of the Tillicum Mountain gold prospect. Accumulated data will be incorporated with the regional data of G.E. Ray for a joint publication in 1985.

524. LACROIX, R., PERRAULT, G., Ecole Polytechnique (Génie minéral):
Gîtologie de la mine New Pascalis, Québec, 1983-85; M.Sc.A. (Lacroix).

Recherche des principaux paramètres structuraux, géochimiques et pétrologiques de la mine New Pascalis, Québec.

525. LACROIX, S., DARLING, R., Ecole Polytechnique (Génie minéral):
Mineralogy and geology of the Ni-Cu deposits, Lac Aulneau, Labrador Trough, Québec, 1983-85; M.Sc.A. (Lacroix).

526. LACROIX, S., DARLING, R., BÉLANGER, M., Ecole Polytechnique (Génie minéral), Québec Ministère Énergie et Ressources:
Métallogénie de Cu-Ni dans la région du Lac Aulneau, Fosse du Labrador, Nouveau-Québec, 1983-85.

Voir:

Gîtologie du Cu-Ni dans la région du lac Aulneau, Fosse du Labrador; Québec Ministère Énergie et Ressources, MB 84-20, 1984.

Objectif: Une compréhension des métallotectes de Cu-Ni dans la région du lac Aulneau. Les caractéristiques pétrographiques du minérai.

527. LAPORTE, P.J., Indian and Northern Affairs Canada (Geol. Div.):
Mineral occurrences, Tavani area, Northwest Territories, 1984-.

Detailed mapping and sampling of mineral occurrences mentioned in assessment reports on the Tavani map area (55K). Early work will concentrate on gold showings.

528. LOGAN, J., SINCLAIR, A.J., Univ. British Columbia (Geological Sciences):
Minor element geochemistry and the origin of Slocan Ag-Pb-Zn deposits, British Columbia, 1983-; M.Sc. thesis (Logan).

Involves minor element geochemistry of Slocan Supergroup, Pb isotope analyses of syngenetic sulphides in Slocan Supergroup and a study of metal distribution at Hallmar mine, Sandon.

529. LONG, D.G.F., COLVINE, A.C., Ontario Geol. Surv.:
Huronian mineral deposits in the Cobalt Embayment, Ontario, 1981-87.

See:

Geology and placer related gold potential of the Huronian Supergroup along the western margin of the Cobalt Plain – a preliminary investigation; Ontario Geol. Surv., Misc. Paper 119, p. 247-251, 1984.

530. LYDON, J.W., Geol. Surv. Can.:
Geology of lead and zinc resources of Canada, 1977-.

See:

A general genetic model for stratiform baritic deposits of the Selwyn Basin, Yukon Territory and District of Mackenzie; Geol. Surv. Can., Paper 85-1A, p. 651-660, 1985.

The distribution of gold in the Tea barite deposit, Yukon Territory; ibid., p. 661-667, 1985.

531. MACDONALD, A.J., Ontario Geol. Surv.:
The association of gold and chemical sedimentary rocks: ore genesis in Archean lode gold deposits, 1982-85.

See:

Gold mineralization I: The role of banded iron formation; C.I.M.M. Spec. Vol. 34, p. 412-430, 1984.

532. MacINTYRE, D.G., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Geology and mineral deposits of the Babine Range, Smithers map area, west-central British Columbia, 1984-88.

See:

Geology of the Dome Mountain gold camp; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 193-213, 1985.

A 25 km^2 area centered on Dome Mountain was mapped at 1:10 000 scale during the 1984 field season. This work was the initial stage of a multi-year program to map and examine mineral occurrences in the Babine Range.

533. MacINTYRE, D.G., SCHROETER, T.G., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Geology and mineral deposits in the Mount Henry Clay area (114P), 1984-87.

See:

Mineral occurrences in the Mount Henry Clay area (114P/7,8); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 365-379, 1985.

Continued studies in 1985 planned. There is a gross stratigraphic similarity between the Windy-Craggy and Mount Henry Clay areas stratiform massive sulphide deposits. Further studies will be concerned with stratigraphy, fossil ages, and mineral deposits.

534. MALCZAK, J., CARTER, T.R., SPRINGER, J.S., Ontario Geol. Surv.:
Base metal, molybdenum and precious metal deposits of the Madoc-Sharbot Lake area, southeastern Ontario, 1982-85.

An inventory of base metal, molybdenum and precious metals deposits in an area of the Grenville Province in southeastern Ontario.

535. MARMONT, S., Ontario Geol. Surv.:
The geology of the Detour Lake Gold Mine, Ontario, 1984-87.

See:

Preliminary report on the geology of the Detour Lake gold mine, District of Cochrane; Ontario Geol. Surv., Misc. Paper 119, p. 226-236, 1984.

536. MASON, R., LACKEY, T., Queen's Univ. (Geological Sciences):
Geological and geochemical investigation of the alkaline pyroclastic sequence associated with gold mineralization at Kirkland Lake, Ontario, 1985-; M.Sc. thesis (Lackey).

To establish litho-structural control on mineralization in Kirkland Lake gold camp.

537. MASON, R., MEZNICK, R., Queen's Univ. (Geological Sciences):
Geological setting of gold mineralization at the McIntyre Mine, Timmins, Ontario, 1984-; M.Sc. thesis (Meznick).

538. MICHEL, S.G., BROWN, A., Ecole Polytechnique (Génie minéral):
Le caractère métallogénique des indices aurifères à Mont Organisé, Haiti, 1983-86; M.Sc.A. (Michel).

La caractérisation de la minéralisation en Au-Cu à Mont Organisé, Haiti.

539. MILLER, C.K., Nova Scotia Dept. Mines and Energy:
Precious metals resource evaluation, 1984-87.

To document existing knowledge of precious metal occurrences (location, geology, economics, etc.) and use this information to evaluate the precious metal resource potential of Nova Scotia.

540. MILLER, R., Newfoundland Dept. Mines and Energy:
Strange Lake project, Labrador, 1984-88.

Documents the geology, petrology and mineralogy of: 1) the Strange Lake Zr-Y-Nb-REE deposit and related granites, and 2) the Mann No. 1 (Letitia Lake) Nb-Be showing and related peralkaline rocks.

541. MORIN, G., KISH, L., Québec Ministère Énergie et Ressources:
Gîtologie de la région de Grandes-Bergeronnes, Québec, 1984-85.

Objectifs: 1) Evaluation du potentiel minéral de la région. 2) Connaissance des métallotectes. 3) Connaissance détaillée de la stratigraphie locale.

542. NIMPAGARITSE, G., PERRAULT, G., Ecole Polytechnique (Génie minéral):
Le gîte de vanadium de Mukanda, Burundi, Afrique, 1984-85; M.Sc.A. (Nimpagaritse).

Ce gîte de vanadium est parmi les gîtes les plus riches au monde: le vanadium est associé à des magnétites titanifères, qui, elles sont associées à des massifs d'anorthosite. Nous espérons poser quelques jalons quant à la géochimie du vanadium et son rôle dans l'évolution tardi-magmatique.

543. O'DRISCOLL, C.F., HUARD, A., Newfoundland Dept. Mines and Energy:
Avalon metallogeny – Hickeys Pond, Newfoundland, 1984-86.

See:

Auriferous specularite-alunite-pyrophyllite deposits of the Hickey's Pond area, northern Burin Peninsula, Newfoundland; Newfoundland Dept. Mines and Energy, Report 85-1, p. 182-189, 1985.

Auriferous epithermal specularite alunite-pyrophyllite deposits are hosted by late Precambrian volcanic rocks of the Love Cove Group on the northern part of the Burin Peninsula. This study intends to evaluate the gold potential of the deposits and their alteration assemblage.

544. O'REILLY, G.A., Nova Scotia Dept. Mines and Energy:
Geology and geochemistry of granophile mineral deposits of the South Mountain Batholith of Nova Scotia, 1984-89.

545. PADGHAM, W.A., BROPHY, J.A., Indian and Northern Affairs Canada (Geol. Div.):
Studies of turbidite hosted gold deposits in the Yellowknife Supracrustal Basin, 1984-87.

See:

Turbidite hosted gold deposits in the Slave Structural Province (N.W.T.); Geol. Assoc. Can.-Mineral. Assoc. Can., Program with Abstracts, vol. 10, p. A46, 1985.

546. PANTELEYEV, A., SCHROETER, T.G., DIAKOW, L.J., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Stratigraphy, structure and petrology of the Toodoggone volcanics and their relationship to the epithermal precious metal deposits, British Columbia, 1981-86; Ph.D. thesis (Diakow).

See:

Potassium-argon age determinations from biotite and hornblende in Toodoggone volcanic rocks (94E); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 299, 300, 1985.

Field mapping of 2500 km^2 at scale 1:50 000 is complete in the belt of 'Toodoggone Volcanics'. Description and laboratory studies of Toodoggone volcanics and the related epithermal precious metal deposits continue. A geological model for Jurassic volcanic-hosted epithermal precious metal deposits is being formulated for the Canadian Cordillera.

547. PERRAULT, G., TRUDEL, P., Ecole Polytechnique (Génie minéral):
Gîtologie et métallogénie de l'or au Québec, 1982-88.

En 1984-85, nous avons consacré nos efforts à l'étude du camp minier de Val d'Or et nos objectifs pour les prochaines années sont: 1985-86: Rouyn-Noranda; 1986-87: Chibougamau-Chapais-Matagami; 1987-88: le reste du Québec.

548. PETRUK, W., EMR (CANMET):
Mineralogy applied to mineral processing, 1982-86.

See:

Applied mineralogy in ore dressing of volcanogenic massive sulphide ores; ICAM 84, TMS/AIME, New York, March, 1985.

It has been determined that the mineralogical properties that affect ore dressing are mineral identities, mineral characteristics, mineral quantities, mineral liberations, and characteristics of unliberated minerals. Rapid methods for determining each are being investigated.

549. PETRUK, W., EMR (CANMET):
Development of automatic image analysis techniques for performing mineralogical studies of ores.

A technique to automatically identify every grain in the field of view of a scanning electron microscope, and to measure its characteristics is being developed.

550. PIROSHCO, D., SHIELDS, H., MACDONALD, A.J., Ontario Geol. Surv.:
Mineral deposits of the Opapimiskan Lake area, Ontario, 1984-86.

See:

Opapimiskan Lake project: Precambrian geology, Quaternary geology and mineral deposits of the North Caribou Lake area, District of Kenora, Patricia Portion; Ontario Geol. Surv., Misc. Paper 119, p. 258-273, 1984.

The mineral deposits studies are part of a large, co-ordinated study of this greenstone belt by the Ontario Geological Survey.

551. RAINVILLE, S., DARLING, R., BAZINET, R., Ecole Polytechnique (Génie minéral):
Development of an exploration method for the property of Les Mines Selbaie, Brouillan Township, Québec; 1982-85; M.Sc.A. (Rainville).

552. RAY, G.E., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Harrison Lake gold project, British Columbia, 1981-85.

See:

Harrison Lake project (92H/5, 12; 92G/9, 16); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 120-131, 1985.

Late Oligocene diorite plutons at Doctors Point on Harrison Lake, in southwestern British Columbia intrude a Middle Albian sequence of volcanic and sedimentary rocks. Cone sheet fractures around the plutons carry pyrite, arsenopyrite, gold and silver mineralization.

553. ROHON, M.-L., ROGER, G., BÉLANGER, M., Université Pierre et Marie Curie, Paris, France, Québec Ministère Énergie et Ressources:
Metallogénie de Cu-Ni dans le sud de la Fosse du Labrador, Nouveau-Québec, 1984-86; thèse de doctorat (Rohon).

Voir:

Indices de Cu-Ni et de pyrite-pyrrhotite, lac Doublet et lac Retty, Fosse du Labrador; Québec Ministère Énergie et Ressources, DV 84-17, p. 58-59, 1984.

Objectifs: Compréhension des métallotectes régionaux. Compréhension des processus d'évolution magmatique.

554. ROSCOE, S.M., Geol. Surv. Can.:
Metallogeny of the northwestern part of the Canadian Shield, 1977-.

See:

The Booth River Intrusive Suite, District of Mackenzie; Geol. Surv. Can., Paper 85-1A, p. 141-144, 1985.

555. RUZICKA, V., Geol. Surv. Can.:
Geology of uranium and thorium resources of Canada, 1975-.

See:

Summary on uranium in Canada, 1984; Geol. Surv. Can., Paper 85-1A, p. 15-22, 1985.

Uranium in the Circum-Ungava Belt, northern Quebec and Labrador: new information from the Central Labrador Trough; ibid., p. 145-149, 1985.

556. SANFAÇON, R., PERRAULT, G., Ecole Polytechnique (Génie minéral):
Gîtologie du camp de Malartic, Abitibi, 1984-89; thèse de doctorat (Sanfaçon).

L'objectif est de synthétiser dans un schéma gîtologique et structural, les observations de quatre décennies d'exploitation dans ce camp minier; nous y ajouterons des observations pétrographiques et géochimiques.

557. SANGSTER, D.F., Geol. Surv. Can.:
Geology of lead and zinc deposits in Canada, 1965-.

558. SAVOIE, A., PERRAULT, G., Ecole Polytechnique (Génie minéral):
Gîtologie de la mine Doyon, Québec, 1983-86; thèse de doctorat (Savoie).

Le gîte no. 2 de la mine Doyon est enveloppé d'un halo d'or (50 ppb Au+) d'une largeur de 400 m. La moitié supérieure et calco-alcaline du Blake River (volcaniques) contient beaucoup d'or: 28 ppb Au.

559. SCHROETER, T.G., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Mineral deposits in the Muddy Lake and vicinity area, British Columbia, 1984-87.

See:

Muddy Lake prospect (104K/1W); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 353-357, 1985.

Heart Peaks prospect (104K/9E); ibid., p. 358-364, 1985.

Start of a larger project to examine precious metals bearing (mainly epithermal) properties in the Muddy Lake-Tatsamenie Lake area.

560. SCHROETER, T.G., CYR, J., PEASE, R., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Geology and mineralization at Equity silver mine, Houston, British Columbia, 1980-84.

See:

Econ. Geol., vol. 79, p. 947-968, 1984.

561. SCHROETER, T.G., PANTELEYEV, A., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Lode gold-silver deposits in northwestern British Columbia, 1983-85.

Deposits have been subdivided into five genetic classes: vein-replacement and porphyry copper-epithermal transition types, porphyry copper, massive sulphide and skarn. Tables listing all recorded gold-silver production and reserves for 172 deposits are given. Comments on current exploration trends with reference to specific deposits are presented.

562. SCOATES, R.F.J., Geol. Surv. Can.:
Regional mineral resource assessment, northern Canada, 1984-.

See:

Geology and copper occurrences of the Natkusiak basalts, Victoria Island, District of Franklin; Geol. Surv. Can., Paper 85-1A, p. 203-214, 1985.

563. SINCLAIR, W.D., Geol. Surv. Can.:
Geology of copper and molybdenum resources of Canada, 1977-.

564. SKETCHLEY, D.A., SINCLAIR, A.J., Univ. British Columbia (Geological Sciences):
Wallrock alteration, Erichson Gold Mine, Cassiar, British Columbia, 1982-85; M.Sc. thesis (Sketchley).

An investigation of the mineralogical and elemental zoning patterns in carbonatized basalt associated with auriferous quartz veins.

565. SMITH, P.M., Ontario Geol. Surv.:
Geology of the Duport Mine, Shoal Lake, northwestern Ontario, 1984-86.

See:

The geological setting of the Duport Mine, Cameron Island, Shoal Lake; Ontario Geol. Surv., Misc. Paper 119, p. 194-200, 1984.

566. SPRINGER, J.S., Ontario Geol. Surv.:
The role of carbon and sulphides in concentration and precipitation of gold, 1983-87.

567. STEVENS, K., Québec Ministère Énergie et Ressources:
Métallogénie du Dôme de Lemieux, Québec, 1982-85; thèse de doctorat.

Evaluation du potentiel minier de la région du Dôme de Lemieux et mise au point de guides dans l'évaluation des gisements hydrothermaux de la Gaspésie. Phase de terrain completée. Rapport final attendu.

568. THOMAS, P., FYSON, W.K., Univ. Ottawa (Geology):
Nature of gold deposits in shear zones, Cordova Gabbro, Grenville Province, Ontario, 1981-84; M.Sc. thesis (Thomas).

569. THORPE, R.I., Geol. Surv. Can.:
Geology of silver and gold deposits in Canada, 1968-.

See:

Occurrence of copper arsenides in the East Arm area, Great Slave Lake, District of Mackenzie; Geol. Surv. Can., Paper 85-1A, p. 713-716, 1985.

570. TOOGOOD, D.G., HODGSON, C.J., HELMSTAEDT, H., Queen's Univ. (Geological Sciences):
Structural and lithological environment of gold mineralization in the area of the Kirkland-Larder Lakes and Porcupine-Destor Breaks, Abitibi Belt, 1984-87.

571. TROTTIER, J., BROWN, A., Ecole Polytechnique (Génie minéral):
Synthèse métallogénique des dépôts sulfureux de la ceinture ophiolitique des Appalaches du sud-est du Québec, région de l'Estrie et de la Beauce, Québec, 1984-86; thèse de doctorat (Trottier).

La caractérisation de la minéralisation Cu-Zn associée aux coups ophiolitiques Appalachiens.

572. VON ROSEN-SPENCE, A., HARROP, J., SINCLAIR, A.J., Univ. British Columbia (Geological Sciences):

Alteration patterns associated with volcanogenic deposits in volcanic sequences of the Canadian Cordillera, 1984-.

See:

Shoshonites and associated rocks of central British Columbia; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 426-442, 1985.

To define characteristic alteration patterns associated with volcanogenic deposits in various volcanic sequences within the Canadian Cordillera. Data gathering is well in hand.

573. VU, Xuan Lan, DARLING, R., BELAN, J., Ecole Polytechnique (Génie minéral):
Geology of the Ferderber ore zone, Belmoral Mine, Val d'Or, Québec, 1983-85; M.Sc.A. (Vu).

574. WARES, R., Québec Ministère Énergie et Ressources:
Synthèse métallogénique du gîte de Sullipek, 1982-85; thèse de doctorat.

Etude du gisement de Sullipek et mise au point de critères de terrain pour la prospection des gisements hydrothermaux de la Gaspésie. Phase de terrain completée. Rapport final attendu.

575. WHITING, R.H., SINCLAIR, A.J., Univ. British Columbia (Geological Sciences):
Lithology and lithogeochemistry of the San Antonio Gold Mine, Bissett, Manitoba, 1984-86; M.Sc. thesis (Whiting).

A study of the host rock unit of an Archean volcanic hosted gold deposit in southeastern Manitoba. Primary emphasis will be placed on petrologic work and multi-element analysis to gain lithological control.

576. WHITTAKER, P.J., MALCZAK, J., TROOP, D.G., Ontario Geol. Surv.:
Mineral deposits and industrial mineral potential of the Black River-Matheson area, northeastern Ontario, 1984-87.

See:

Mineral deposits investigations in the Black River-Matheson (BRIM) area, District of Cochrane; Ontario Geol. Surv., Misc. Paper 119, p. 290-294, 1984.

577. WILSON, J., Alberta Research Council (Geol. Surv.):
Mineral exploration sample storage/Athabasca Basin study, 1979-86.

578. WILTON, H.C., MacDOUGALL, C., Memorial Univ. (Earth Sciences):
1. Metallogeny of the central mineral belt, Labrador. 2. Precious metal deposits, insular Newfoundland and Labrador, 1984-89; M.Sc. thesis (MacDougall).

Metallogenic studies of Proterozoic supracrustal sequences in the central mineral belt of Labrador; examination and study of precious metal deposits southwestern Newfoundland, and the central mineral belt of Labrador.

579. ZENTILLI, M., HELGASON, J., Dalhousie Univ. (Geology):
The behaviour of gold (and sulphur) in shallow intrusives and volcanic products, 1984-89.

During the differentiation of certain volcanic suites, gold was enriched in the residual melt, leading to an enrichment in the metal in the more felsic members; this has important implications for gold exploration in volcanic terrains. Sulphur plays an important role in this enrichment.

580. ZENTILLI, M., REYNOLDS, P.H., MacINNIS, I.N., GRAVES, M.C., CAMERON, B., HINGSTON, R., Dalhousie Univ. (Geology):
Geochemistry of lead-zinc-manganese-gold-mineralization associated with the Goldenville-Halifax transition (GHT), Nova Scotia, 1983-88; B.Sc. theses (MacInnis, Cameron, Hingston).

See:

Geochemistry of lead-zinc-manganese mineralization associated with the Goldenville-Halifax transition of the Cambro-Ordovician Meguma Group at Eastville, Nova Scotia; Geol. Assoc. Can.-Mineral. Assoc. Can., Programs with Abstracts, vol. 10, p. A70, 1985.

90% of the mineral deposits in the Meguma Terrane are associated with the G.H.T., representing a control of exploration significance. Models for the metal enrichment of the manganiferous sediments-black shale environment are being evaluated.

581. ZENTILLI, M., REYNOLDS, P.H., RAVENHURST, C.E., AKANDE, S.O., Dalhousie Univ. (Geology, Univ. Ilorin, Nigeria).
Carbonate-hosted Pb-Zn-Ba-F deposits and their genetic relationships to basin evolution, 1983-88; Ph.D. thesis (Ravenhurst).

See:

Carbonate hosted Pb-Zn-Ba-F deposits, and their genetic relationship to Carboniferous basins, Nova Scotia; Geol. Assoc. Can.-Mineral. Assoc. Can., Programs with Abstracts, vol. 10, p. A51, 1985.

Isotopic, K/Ar and Ar/Ar geochronology, Fossil Fission Tracks, and Thermometric tools are used to develop an aquifer model of fluid circulation and mineralization.

PETROLEUM EXPLORATION/EVALUATION/ RECHERCHE ET ÉVALUATION DES GÎTES DE PÉTROLE

582. BELL, J.S., Geol. Surv. Can.:
Maturation studies, 1981-.

583. BELL, J.S., Geol. Surv. Can.:
Evolution of East Coast Paleozoic basins, 1984-.

584. DIETRICH, J.R., Geol. Surv. Can.:
Petroleum geology of Tertiary, Mesozoic and Paleozoic north of 68° on the NWT and Yukon mainland and offshore, 1985-.

585. FOSCOLOS, A.E., Geol. Surv. Can.:
Diagenetic profiles for reservoir exploration – frontier basin resources, 1983-.

586. FOSCOLOS, A.E., Geol. Surv. Can.:
Fluid rock interactions, 1984-.

587. GOODARZI, F., Geol. Surv. Can.:
Temperature history of Lower Paleozoic rocks, determined by optical study of dispersed organic materials, 1982-.

588. GRANT, A.C., Geol. Surv. Can.:
Geological interpretation of geophysical data as an aid to basin synthesis and hydrocarbon inventory, 1976-.

589. JOHNSON, M.D., TELFORD, P.G., Ontario Geol. Surv.:
Oil shale assessment project, a sub-part of the hydrocarbon Energy Resources Program, 1981-86.

590. KALKREUTH, W.D., Geol. Surv. Can.:
The relationship between kerogen (type and rank) and chemical extract data, for the purpose of source rock evaluation, 1977-.

591. McMILLAN, N.J., Geol. Surv. Can.:
Petroleum geology of Tertiary, Mesozoic and Paleozoic strata, north of 70°, District of Franklin, 1975-.

592. McMILLAN, N.J., Geol. Surv. Can.:
Petroleum evaluation of mainland Territories, 1977-.

593. MARTEL, A.T., New Brunswick Dept. Natural Res. (Geol. Surv. Br.):
Hydrocarbon show map and its implications, Carboniferous sediments of New Brunswick, 1984-85.

To visit and describe in detail all reported sitings of free hydrocarbon in the Carboniferous of New Brunswick. To note regional trends in oil accumulations and discuss how these influence petroleum exploration in the Province.

594. MARTEL, A.T., New Brunswick Dept. Natural Res. (Geol. Surv. Br.):
Petroleum potential of the Upper Devonian Escuminac Formation of Quebec, 1984-86.

To study the organic and reservoir character of the Escuminac Formation in order to determine its potential as a hydrocarbon producer.

595. OSADETZ, K.G., Geol. Surv. Can.:
Petroleum resource evaluation of western Canada, 1978-.

596. RAICAR, M., Geol. Surv. Can.:
Enhanced oil recovery research, 1982-.

597. RAICAR, M., Geol. Surv. Can.:
Microbial enhanced oil recovery in southwestern Ontario, 1983-.

598. SKIBO, D.N., Geol. Surv. Can.:
Thermal history and basin evolution – Canadian frontier regions, 1983-.

599. TELFORD, P.G., SANDERSON, J., Ontario Geol. Surv.:
Geology and hydrocarbon energy resources, Moose River Basin, James Bay Lowland, Ontario, 1982-86.

GENERAL/GÉNÉRALITÉS

600. BARRETT, T.J., ANDERSON, G.M., LUGOWSKI, J., Univ. Toronto (Geology):
The solubility of galena and sphalerite in high-concentration NaCl brines, 1984-85.

We are experimentally determining the solubilities of sphalerite, galena, and hydrogen sulfide in 3-5 m NaCl brines, and also plan to investigate the solubilities of the precious metals Pt, Au and Ag under these conditions.

601. BIRKETT, T.C., Geol. Surv. Can.:
Metallogeny of Eastern Canada, 1984-.

602. CHATTERJEE, A.K., Nova Scotia Dept. Mines and Energy:
Mineral deposit studies.

See:

Rare-earth and other element variations in greisens and granites associated with East Kemptville tin deposit, Nova Scotia, Canada; Trans. Instit. Mining and Metallurgy (Sect. B: Applied Earth Sci.), vol. 93, p. 1359-1370, 1984.

Discriminant and factor analysis of geochemical data from granitoid rocks hosting the Millet Brook uranium mineralization, South Mountain Batholith, Nova Scotia; Uranium, vol. 1, p. 289-305, Elsevier Science Publ., 1984.

This study has dealt with critical aspects of two particular granitoid hosted mineral deposits of Nova Scotia. It outlines criteria which may be critical towards the further delineation of the significant mineralization.

603. DAWSON, K.M., Geol. Surv. Can.:
Metallogeny of the northern Canadian Cordillera, 1974-.

604. DUNSMORE, H.E., Geol. Surv. Can.:
Metallogenic processes in sedimentary-diagenetic environments, 1982-.

605. ECKSTRAND, O.R., Geol. Surv. Can.:
Metallogeny of ultramafic and mafic rocks, 1984-.

606. FRANKLIN, J.M., Geol. Surv. Can.:
Metallogeny of the southwestern part of the Canadian Shield, 1975.

See:

Gold mineralization in the Beardmore-Geraldton area of northwestern Ontario: structural considerations and the role of iron formation; Geol. Surv. Can., Paper 85-1A, p. 193-201, 1985.

Preliminary investigation of gold occurrences in the Flin Flon-Snow Lake Belt, Manitoba and Saskatchewan; ibid., p. 761-771, 1985.

607. FRANKLIN, J.M., Geol. Surv. Can.:
Metallogeny of marine environments, including active spreading ridges, 1982-.

608. FUGLEM, M.O., Geol. Surv. Can.:
Evaluation of unconventional gas resources in the Deep Basin of western Canada, 1978-.

609. GROSS, G.A., Geol. Surv. Can.:
Geology of mineral resources in the ocean, 1976-.

610. HALE, W.E., HASSAN, H.H., Univ. New Brunswick (Geology):
Distribution of uranium and thorium in rocks of southwestern New Brunswick, 1979-84; Ph.D. thesis (Hassan).

611. HAYNES, S.J., REILLY, B., Brock Univ. (Geological Sciences):
Uraniferous pegmatites, Bancroft area, Ontario, 1977-84. Turbidite-hosted gold deposits, Meguma domain, Nova Scotia, 1982-; M.Sc. thesis (Reilly).

See:

Polygenesis of gold, eastern Meguma domain; Nova Scotia Dept. Mines and Energy, Report 84-1, p. 215-223, 1984.

New interest in Nova Scotia gold; ibid., p. 227-228, 1984.

612. HODGSON, C.J., HAMILTON, J.V., Queen's Univ. (Geological Sciences):
The gold lode systems at Kolar, India, 1984-87; Ph.D. thesis (Hamilton).

613. HOY, T., GAUTHIER, F., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
A metallogenic study of the Kootenay River sheet, southeastern British Columbia, 1984-86; M.Sc. thesis (Gauthier).

See:

Rift, a zinc-lead massive sulphide deposit in southeastern British Columbia (82M/15); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 105-119, 1985.

Copper-zinc deposits associated with basic volcanism, Goldstream area, southeastern British Columbia; Econ. Geol., vol. 79, no. 5, p. 789-814, 1984.

Involves production of a metallogenic map, accompanying comprehensive mineral deposit tables and overview geological notes of map sheet 82 (Kootenay River), southeastern British Columbia (scale 1:1 000 000). This is the first of a series of metallogenic sheet studies.

614. KWONG, Y.T.J., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Petrography of lode gold mineralization in British Columbia, 1985-87.

To study the mineral associations and textural relationships involving lode gold so as to gain a better understanding of gold transportation and deposition. One of the aimed end-products of the study is an atlas of photomicrographs of relevant petrographic features.

615. KWONG, Y.T.J., HORA, Z.D., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Titanium minerals in porphyry copper tailings, British Columbia, 1982-84.

See:

Titanium in tailings of porphyry deposits in British Columbia; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 380-388, 1985.

Whereas calc-alkaline porphyry deposits generally contain less titania than alkaline deposits, they constitute a more promising source of byproduct titanium because they contain rutile and because they are larger in size. Among the fourteen deposits studied, a transitional porphyry system deposit, Equity Silver, shows the highest titanium content (about 1%) and a significant amount of rutile. More detailed study is, however, needed to assess the feasibility of recovering rutile from this deposit.

616. MacINTYRE, D.G., SCHROETER, T.G., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Geologic setting of massive sulphide deposits of the Insular Tectonic Belt, 1982-.

See:

Mineral occurrences in the Mount Henry Clay area (114P/7,8); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 365-379, 1985.

Late Triassic mafic volcanic rocks of the Insular Belt host cupreous pyrite-pyrrhotite and polymetallic massive sulphide deposits, e.g. the large Windy Craggy deposit. Currently the geologic setting of these deposits in the Tatshenshini map area in northwestern British Columbia is being studied.

617. MACKENZIE, B.W., DOGGETT, M., Queen's Univ. (Geological Sciences):
The influence of geological and economic factors on Canadian primary gold supply, 1946-84, 1984-; M.Sc. thesis (Doggett).

618. MACKENZIE, B.W., VERLEUN, L., Queen's Univ. (Geological Sciences):
Base metal supply potential in Northern and Southern Canada: a comparative economic study, 1983-; M.Sc. thesis (Verleun).

The thesis assesses the economic viability and compares the competitive position of base metal supply in northern and southern Canada. For this purpose, a deposit-specific data base is assembled. Historical experience is placed in the context of current outlook conditions. The study methodology evaluates the potential value of mineral supply based on costs and revenues associated with exploration, development, and production phases of activity. Findings are expressed in terms of various expected value and risk measures.

Results for a set of 'base case' conditions indicate that the economics of base metal supply in northern Canada are, despite remoteness, more attractive than in the south. The average exploration expenditure per economic deposit discovered is found to be much lower in the north. The average return characteristics for economic deposits are about the same for the two study areas.

The economics of base metal supply in southern Canada are shown to be more sensitive to possible changes in key study parameters. This result is found to be mainly due to a higher proportion of small, marginal economic deposits in the south.

An evaluation of the return characteristics of economic deposits shows that the lower quality of base metal deposits in the north in terms of more-remote location is essentially offset by higher quality in other respects, particularly closeness to surface. Comparative north-south returns are also explained by the different mix of deposit types within each area. Sediment-hosted massive sulphide deposits predominate in the north. While volcanic-associated massive sulphide deposits are most important in southern Canada, porphyry deposits also play a significant role.

619. MAURICE, Y.T., Geol. Surv. Can.:
Heavy mineral studies, Gaspe, Québec, 1984-.

620. MAURICE, Y.T., Geol. Surv. Can.:
Heavy mineral studies, Eastern Townships, Québec, 1984-.

621. MILLER, A.R., Geol. Surv. Can.:
Metallogeny of the Baker Lake-Thelon region, Northwest Territories, 1981-.

622. NALDRETT, A.J., GASPARRINI, C., BANRES, S.J., VON GRUENEWALDT, G., SHARPE, M.R., Univ. Toronto (Geology):
Petrology of the upper critical zone of the Bushveld Complex and its bearing on the origin of the Merensky Reef.

The Merensky Reef occurs at the base of a cyclic unit which is one of a series forming the upper part of the Critical Zone of the Complex. There is a generally stepwise decrease in the Sr content of plagioclase between each of the top 3 units of this series. The MgNo of bronzite shows a marked upward decrease in most cyclic units, increasing abruptly again at the base of the overlying unit. Pronounced changes in Sr initial ratio occur near or within the Merensky unit.

The Ni/Cu and Pt/Cu of the Merensky reef are 2.3:1 and 5 to $12*10^{-3}$ respectively, very different to the Ni/Cu and Pt/Cu of 1.2:1 and 0.1 to $0.25*10^{-3}$ of the remainder of the Merensky unit. The Bastard unit has Ni/Cu of 1.2:1 and Pt/Cu of about $0.1*10^{-3}$, contrasting with Ni/Cu of 2 and Pt/Cu of $0.45*10^{-3}$ in patches of sulfide close to the base of the unit.

These petrologic features demand a model in which PGE enrichment is synchronous with the crystallization of the rocks themselves and argue strongly for successive injection of pulses of new magma. It is proposed that the magma in the intrusion was density stratified and that new pulses entering the chamber were intermediate in density. Consequently, the new magma rose rapidly as a turbulent plume, drawing within itself and mixing with some of the magma that it was rising through, and spreading out as an intermediate layer.

The high PGE tenor of the sulfides of the Merensky reef is attributed to their segregating early, and thus their mixing very efficiently with their host magma, both in the plume and subsequently in the horizontal layer. The Merensky Reef formed once cooling and crystallization caused the density of the new layer to exceed that of the underlying magma, whereupon 'down-spouts' of the dense magma-crystal-sulfide mixture developed and spread out over the chamber floor as the reef.

623. O'DRISCOLL, C.F., Newfoundland Dept. Mines and Energy:
Mineral occurrence data system, 1978-.

See:

Mineral Occurrence Map – Wesleyville (2/F), 1:250 000; Newfoundland Dept. Mines and Energy, Map 84-23, 1984.

Mineral Occurrence Map – Gander Lake (2/D), 1:250 000; ibid., Map 84-25, 1984.

Mineral Occurrence Map – Port aux Basques (11/O), 1:250 000; ibid., Map 84-61, 1984.

Mineral Occurrence Map – Bonavista (2/C), 1:250 000; ibid., Map 84-21, 1984.

Mineral Occurrence Map – St. Anthony (2/M), 1:250 000; ibid., Map 84-24, 1984.

Mineral Occurrence Map – Blanc-Sablon (12/P), 1:250 000; ibid., Map 84-25, 1984.

Mineral Occurrence Map – Bay of Islands (12/G), 1:250 000; ibid., Map 84-44, 1984.

Mineral Occurrence Map – Hopedale (13/N), 1:250 000; ibid., Map 84-22, 1984.

The Mineral Occurrence Data System is designed to offer an efficient information service on all mineral occurrences in the province. It is a two-part project comprising a manual Mineral Inventory File and a computerized Mineral Index. Mineral occurrence maps are plotted on updated geological bases and are published as 1:250 000 N.T.S. areas are completed.

624. PELL, J., Univ. British Columbia (Geological Sciences), British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Carbonatites and related intrusives in British Columbia, 1984-86.

See:

Carbonatites and related rocks in British Columbia (82L, 83D, 93I, 93N); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 85-94, 1985.

625. PIROSHCO, D., HODGSON, C.J., Queen's Univ. (Geological Sciences):
Relationships of hydrothermal alteration to deformation at the Coniaurum gold mine, Timmins, Ontario, 1982-85; M.Sc. thesis (Piroshco).

To determine the geological timing and structural/stratigraphic controls of gold mineralized, carbonate alteration zones at the Coniaurum mine as an aid in exploration for gold deposits outside the study areas.

626. POULSEN, K.H., Geol. Surv. Can.:
Comparative regional metallogeny, Ontario-Manitoba-Saskatchewan, 1984-.

See:

Mineralization associated with Archean gabbro-anorthosite intrusions, Rainy Lake area, northwestern Ontario; CIM Sp. Vol. 34, p. 329-344, 1984.

627. RUITENBERG, A.A., McCUTCHEON, S.R., New Brunswick Dept. Nat. Res. (Geol. Surv. Br.):
Gold deposits southern New Brunswick, 1983-87.

See:

Geology and mineralogy of gold deposits, Cape Spender-Black River area – a progress report; New Brunswick Dept. Nat. Res., Information Circular 84-2, p. 7-15, 1984.

Geology of gold-bearing rocks in the Lorneville-Lepreau area; ibid., p. 2-7, 1984.

628. SANGSTER, D.F., Geol. Surv. Can.:
A study of certain accessory elements in Canadian sulphide assemblages and minerals, 1973-.

629. SCHROETER, T.G., PANTELEYEV, A., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Gold deposits in British Columbia, 1980-86.

Map at 1:2 000 000 with legend showing past, present and future producers will be published in 1985. Deposits listed in order of production under: Milling Rate, Years of Operation, Tonnes Milled, Gold Produced, Silver Produced, Recovered Grade, Au:Ag, NTS, Mineral Inventory Number, Reserves and Classification.

630. SOLES, J.A., EMR (CANMET):
Stability of mineral aggregates in concretes, 1960-.

See:

Further evaluation of the potential stability of Hilton Mines waste rock as concrete aggregate; CANMET Rept. MRP/MSL 85-13 (TR), 1985.

631. SOUTHER, J.G., Geol. Surv. Can.:
Geothermal energy resources in Canada, 1973-.

632. TROOP, D.G., HODGSON, C.J., Ontario Geol. Surv.:
Computer applications to mineral deposits geology and exploration, 1983-87.

633. VALIQUETTE, G., DOYON, M., Ecole Polytechnique (Génie minéral):
Synthèse géologique des roches volcaniques du York River de part et d'autre du Dome Lemieux, Québec, 1985-87; thèse de maîtrise (Doyon).

Le Dome Lemieux, exploré depuis 75 ans pour les métaux de base se situe dans un environnement de roches volcaniques acides et basiques. Le projet consiste à étudier cet environnement volcanique par une cartographie détaillée et une caractérisation géochimique des diverses formations.

634. YEO, G., Geol. Surv. Can.:
Stellarton Basin analysis, Nova Scotia, 1984-89.

MINERALOGY/CRYSTALLOGRAPHY/MINÉRALOGIE/CRISTALLOGRAPHIE

635. ADSHEAD, J.D., Geol. Surv. Can.:
Mineralogy and geochemistry of the unconsolidated cover – Central Arctic, 1976-.

636. BRACKMANN, A.J., SCOTT, S.D., Univ. Toronto (Geology):
Diffusion of zinc and iron in sphalerite, 1984; M.Sc. thesis (Brackmann).

Conventional radio-tracer techniques were used to measure self-diffusion of Zn in sphalerite. Results are inconclusive but $D < 3.8 \times 10^{-13}$ cm^2/s at 700°C. Zn-Fe inter-diffusion near the pyrite-pyrrhotite buffer is given by $D = 4.6 \times 10^{-7} e^{-31R}$ cm^2/s.

637. BRYNDZIA, L.T., WANG, D., SCOTT, S.D., Univ. Toronto (Geology):
High pressure phase relations in the Fe-As-S system, 1984-.

We are measuring experimentally the change with pressure of the As/S ratio in synthetic arsenopyrites at various temperatures and sulfide-arsenide buffer assemblages.

638. CABRI L.J., EMR (CANMET):
Evaluation of the Micro-PIXE technique in mineralogical studies of platinum-group element ores, 1982-.

See:

Quantitative trace-element analyses of sulfides from Sudbury and Stillwater by proton microprobe; Can. Mineral., vol. 22, p. 521-542, 1984.

The nature of the distribution and concentration of platinum-group elements in various geological environments; Proceed. 27th Internat. Geol. Congress, vol. 10, p. 17-46, 1984.

639. CABRI, L.J., EMR (CANMET):
Mineralogical studies related to improving silver recovery from zinc processing plants; 1982-.

See:

Secondary ion mass spectrometric study of dissolver silver and indium in sulfide minerals; Scanning Electron Microscopy III, p. 1139-1146, 1984.

Silver-bearing chalcopyrite, a principal source of silver in the Izok Lake massive sulfide deposit: confirmation by electron and proton microprobe analyses; Can. Mineral., vol. 22, p. 493-498, 1984.

640. CHAGNON, A., GOSSELIN, C., INRS-Géoressources, Québec, Ministère Énergie et Ressources:
Géologie des argiles des Groupes de Matapédia et d'Honorat de la région de Carleton, Québec, 1982-85.

See:

Clay minerals as indicators of burial diagenesis and hydrothermal alteration in the Honorat and Matapedia groups, Carleton area, Quebec; Geol. Assoc. Can.-Mineral. Assoc. Can., Program with Abstracts, vol. 10, p. A8, 1985.

Les assemblages minéralogiques et certaines propriétés des minéraux qui les forment ont permis de détecter et de caractériser certaines aires d'altération hydrothermale associées ou non à des minéralisations. Les mêmes indicateurs ont aussi permis une plus grande compréhension de la sédimentologie et de la diagenèse d'enfouissement.

641. CHAGNON, A., MORIN, R., INRS-Géoressources, Québec Ministère Énergie et Ressources:
Minéraiogie des argiles des aires d'altération dans les Formations de Pabos et de White Head et du Groupe de Fortin de la région de Restigouche, Québec, 1983-85.

Des zones d'altération hydrothermale ont été caractérisées par la minéralogie des argiles.

642. CHEN, T.T., EMR (CANMET):
Mineralogy of leach residues from uranium extraction processes, 1983-84.

See:

Mineralogical examination of leach residues of uranium ore from Midwest Lake, Northern Saskatchewan, Canada; Symp. vol. ICAM-84.

643. CHEN, T.T., EMR (CANMET):
Mineralogy of silver in zinc extraction process, 1984.

644. FARKAS, A., SCOTT, S.D., Urangesellschaft Canada Ltd., Univ. Toronto (Geology):
High temperature phase relations in the Fe-Ni-S system.

We are redetermining phase relations in the entire Fe-Ni-S system from 500° to 900°C, determining activities of Ni, Fe and S in all solid and liquid phase fields and measuring partition coefficients for Ni between disulfides and monosulfides.

645. FERGUSON, R.B., Univ. Manitoba (Earth Sciences):
Ideal sanidine, ideal orthoclase and ideal maximum-microcline, the structural end-members in the two K-feldspar series sanidine↔orthoclase and orthoclase↔maximum-microcline, 1981-85.

646. FERGUSON, R.B., BALL, N.A., Univ. Manitoba (Earth Sciences):
Quantitative mineralogical analysis of perthitic maximum-microcline and low-albite by X-ray powder diffractometry, 1983-85.

See:

Geol. Assoc. Can.-Mineral. Assoc. Can., Program with Abstracts, vol. 10, p. A17, 1985.

647. GAUMOND, A., PERRAULT, G., Ecole Polytechnique (Génie minéral):
Minéralogie de la minéralisation aurifère de la mine New Pascalis, près Val d'Or, Québec, 1985-86; M.Sc.A. (Gaumond).

L'objectif de cette recherche est de définir les minéraux associés à la minéralisation aurifère: il y a plusieurs tellurures et peut-être un nouveau tellurure.

648. GOBLE, R.J., SCOTT, S.D., Univ. Nebraska-Lincoln (Geology), Univ. Toronto (Geology):
Relationship between mineral hardness and compressibility, 1984.

We have demonstrated on indirect correlation between hardness and compressibility for specific mineral groups. Hardness should be defined as the second derivative of lattice energy with interatomic distance.

649. HARRIS, D.C., Geol. Surv. Can.:
X-ray diffraction analyses and mineralogical studies, 1968-.

See:

Occurrences of copper arsenides in the East Arm area, Great Slave Lake, District of Mackenzie; Geol. Surv. Can., Paper 85-1A, p. 713-716, 1985.

650. HAWTHORNE, F.C., Univ. Manitoba (Earth Sciences):
Towards a structural classification of minerals, 1977-.

A mineral classification based on crystal structure rather than chemical composition is being developed. Initial work suggests a close relationship between crystal structure and mineral paragenesis.

651. HAWTHORNE, F.C., GROAT, L.A., Univ. Manitoba (Earth Sciences):
The crystal chemistry of vesuvianite, 1983-; Ph.D. thesis (Groat).

A detailed study of the optics, chemistry, crystallography and paragenesis of the complex but common silicate mineral vesuvianite. Microprobe analysis and detailed optical studies are in progress, and wet chemical analyses for additional constituents are planned.

652. HAWTHORNE, F.C., GROAT, L.A., ERCIT, L.S., RAUDSEPP, M., Univ. Manitoba (Earth Sciences):
Structure solution and systematics in aniso-desmic minerals, 1984-.

653. HAWTHORNE, F.C., RAUDSEPP, M., ERCIT, L.S., GROAT, L.A., Univ. Manitoba (Earth Sciences):
Applications of the Rietveld method to mineralogy and experimental petrology, 1983-.

We are using crystal structure refinement from powder diffraction data to characterize geologically significant aspects of very fine-grained natural and synthetic minerals that have resisted analysis by conventional diffraction and spectroscopic techniques.

654. HAWTHORNE, F.C., SMITH, J.V., Univ. Manitoba (Earth Sciences):
Aspects of three-dimensional nets, 1985-.

655. HOEVE, J., QUIRT, D., Saskatchewan Research Council (Resources):
Soda metasomatism and mineralization at Beaverlodge, northern Saskatchewan, 1982-.

Uranium mineralization at Beaverlodge displays characteristic features of the Na-Ti-U Class of metamorphic-hydrothermal deposits. Reconnaissance work to date has established that soda metasomatism at Beaverlodge is much more wide-spread and of much greater importance than previously realized. Objectives are to elucidate the relationships between regional metasomatism and uranium and gold mineralization.

656. HOEVE, J., QUIRT, D., Saskatchewan Research Council (Resources):
Clay mineral diagenesis, host rock alteration and mineralization in Athabasca basin.

See:

Host rock alteration and its application as an ore guide at the Midwest Lake uranium deposit, northern Saskatchewan; CIM Bull. 77, p. 63-72, 1984.

The metallogenesis of uranium in the Athabasca basin is intimately tied to prograde and retrograde diagenesis of the 1450 Ma old Middle-Proterozoic Athabasca Group red beds. Primary ore formation took place during an advanced stage of basin development, starting approximately 100-150 Ma after deposition of the sediments, in response to fluid interaction between sandstone and basement under conditions of deep burial and high-grade diagenesis. Two main phases of mineralization are recognized. During the 1330-1250 Ma interval, diagenetic-hydrothermal systems of sandstone-basement interaction were established throughout the basin, initiating the first and main stage of mineralization. This stage is characterized by the formation of high-grade, arsenide-facies ore, clay mineral alteration (illite; chlorite), quartz dissolution, graphite destruction, formation of hydrocarbons and secondary hematitization. Basin-wide reactivation of the hydrothermal systems during the interval 1100-1050 Ma gave rise to the second stage of mineralization marked by sulphide-facies ore and extensive superimposed bleaching. Much younger remobilization at 300-250 Ma is associated with intensive kaolinitization representing retrograde diagenesis during uplift and unroofing of the basin.

A metallogenetic model is presented in which diagenetic-hydrothermal systems of sandstone-basement interaction are driven by free convection within the basal Athabasca aquifer. Temporal heatflow variations associated with episodes of tectonic reactivation and diabase magmatism regulated free convection within the aquifer, thereby operating a switching mechanism that allowed episodic diagenetic-hydrothermal activity on a basin-wide scale at intervals in the order of 100-150 Ma.

657. JAMBOR, J.L., EMR (CANMET):
Resource evaluation (mineralogical studies of base-metal ores in the Atlantic provinces), 1976-.

See:

Mineralogy of the Tulks Zn-Pb-Cu massive sulphide deposit, Buchans area, Newfoundland; CANMET, Rept. MRP/MSL 84-22 (IR), 1984.

658. JAMBOR, J.L., DUTRIZAC, J.E., EMR (CANMET):
Silver recovery in zinc industry, 1982-.

See:

Formation and characterization of argento-jarosite and plumbojarosite and their relevance to metallurgical processing; Internat. Congr. Applied Mineralogy in the Mineral Industry, p. 507-530, 1984.

659. JAMIESON, H., PETERSON, R.C., Queen's Univ. (Geological Sciences):
Cation ordering in spinels as a function of temperature and composition.

Through X-ray studies of synthetic spinels, the study of inverse/normal character as a function of temperature of equilibration and chemical composition is being studied.

660. McGREGOR, C.R., FERGUSON, R.B., Manitoba Dept. Energy and Mines (Geol. Surv. Sec.), Univ. Manitoba (Earth Sciences):
Twinning and phase characterization of microclines by single-crystal X-ray precession photography, 1981-85; M.Sc. thesis (McGregor).

661. MAINWARING, P.R., JAMBOR, J.L., PETRUK, W., EMR (CANMET):
Mineralogical evaluation of ores – process mineralogy of ores in the northern Cordillera, 1985-89.

1985 – Selection of deposits to be studied. Mineralogical characterization, liberation studies.

662. OTTAWAY, T.L., WICKS, F.J., Royal Ontario Mus. (Mineralogy and Geology), Univ. Toronto (Geology):
Mineralogy and geochemistry of the Colombian emerald deposits, 1981-85; M.Sc. thesis (Ottaway).

The geochemical conditions under which the Muzo emerald deposit (Colombia), was formed is being investigated. Fluid inclusions, organic thermal maturation indicators and illite crystallinity will bracket formation temperatures and provide information on fluid chemistry. The emeralds are found in calcite/albite veins which cross-cut black shales. There is no igneous association with this deposit.

663. PEARCE, T.H., HEATON, J.P.W., WILSON, J.W.L., Queen's Univ. (Geological Sciences, Urology):
Laser fluorescence of kidney stones, 1984.

See:

Laser fluorescence: new technique for trace crystal analysis in urinary calculi; Can. Urology Assoc. Ann. Meeting, Montreal, 1985.

Light from a HeCd laser is used to produce fluorescence in human kidney stones.

664. PETERSON, R.C., MacFARLANE, D.B., Queen's Univ. (Geological Sciences):
REE distribution in Grenville allanites; M.Sc. thesis (MacFarlane).

Study of REE in allanite in the Grenville Province considering geologic setting and associated mineralogy.

665. PETERSON, R.C., MELLVISH, J., Queen's Univ. (Geological Sciences):
High temperature furnace for single crystal X-ray studies.

Development calibration and testing of a high temperature furnace for studying cation ordering at elevated temperatures.

666. PLANT, A.G., Geol. Surv. Can.:
Electron beam microanalysis, 1962-.

667. POULIOT, G., BERNIER, L., Ecole Polytechnique (Génie minéral):
Minéralogie et pétrographie de la zone aurifère nord de Montauban-Les-Mines, Québec, 1982-85; M.Sc.A. (Bernier).

La gahnite, Zn-staurolite-grenat manganifère sont caractérisés à la microsonde et démontrent une zonalité vis-à-vis la stratigraphie. Une fibrolite (sillimanite) abondante, nuclée sur la biotite, suggère une kaolinite ancestrale reliée à une altération hydrothermale antérieure.

668. RAUDSEPP, M., TURNOCK, A.C., Univ. Manitoba (Earth Sciences):
Composition of silicate cumulate minerals of the Fox River Sill, Manitoba, 1984-85.

Probe analysis of the cumulate silicate minerals from the layered ultramafic-mafic complex at Fox River, Manitoba.

669. SCHANDL, E.S., WICKS, F.J., Univ. Toronto (Geology), Royal Ontario Mus. (Mineralogy and Geology):
Alteration of ultramafic rocks in the Kidd volcanic complex of the Abitibi Greenstone Belt, Ontario, Canada, 1983-87; Ph.D. thesis (Schandl).

Ultramafic rocks in the Timmins area display the effect of episodic changes in the composition of the metasomatizing fluid; peridotitic komatiites are altered to serpentine and/or talc and carbonate. A detailed study on the mineralogy, major and trace element geochemistry of whole rocks, fluid inclusion and stable isotope studies will lead to a better understanding of the nature and origin of the metasomatizing fluid. A model will be developed for the interpretation of geochemical data.

670. SPRY, P.G., SCOTT, S.D., Univ. Toronto (Geology):
Stability and compositional variation of zincian spinels (gahnite), 1984; Ph.D. thesis (Spry).

Spinels along the compositional join $ZnAl_2O_4$-$FeAl_2O_4$ have been synthesized as a function of P-T-A_{O_2}-A_{S_2}, in the presence of ZnS and Al_2O_3. The solid solution is ideal. Spinels from the environment of metamorphosed massive sulphide deposits tend to be zinc rich.

671. SZYMANSKI, J.T., EMR (CANMET):
Crystal structure analysis of minerals to aid research in mineral processing and metallurgy, 1971-.

See:

The crystal structure of tungstite, $WO_3 \cdot H_2O$; Can. Mineral., vol. 22, p. 681-688, 1984.

The emphasis of the research for 1984-85 is being directed towards a better understanding of the crystal chemistry of the jarosite/alunite family of minerals, particularly in regard to non-stoichiometry of the cations and hydronium-ion substitution. This has great relevance in silver recovery in the zinc industry.

672. TURNOCK, A.C., TREMBATH, G., Univ. Manitoba (Earth Sciences):
Composition of staurolites in the Snow Lake greenstone belt, 1983-85; M.Sc. thesis (Trembath).

See:

Staurolite from the Snow Lake area, Manitoba; Geol. Assoc. Can.-Mineral. Assoc. Can., Program with Abstracts, vol. 10, p. A63, 1985.

Probe analyses of 50 staurolite show systematic differences between samples from metasedimentary vs. hydrothermally altered rocks.

673. WICKS, F.J., Royal Ontario Mus. (Mineralogy and Geology), Univ. Toronto (Geology):
The structures and crystal chemistry of the serpentine minerals, 1970-.

The lack of ordered Mg-end member lizardite crystals has lead to the use of structure modelling and Rietveld structure refinement to determine the details of this structure. High resolution transmission electron microscopy is being carried out on lizardite pseudomorphs to learn more about the replacement and recrystallization process.

674. WICKS, F.J., RAMIK, R., Royal Ontario Mus. (Mineralogy and Geology):
Thermal and evolved gas analyses of minerals, 1976-.

See:

Walentaite, a new calcium iron arsenate phosphate from the White Elephant mine, Pringle, South Dakota; Neues Jahrbrach fur Mineralogie, vol. 4, p. 169-174, 1984.

Triplite from east Kemptville, Nova Scotia; Mineralogical Magazine, vol. 48, p. 142-143, 1984.

Franconite, a new hydrated Na-Nb oxide mineral from Montreal Island, Quebec; Can. Mineral., vol. 22, p. 239-243, 1984.

Edingtonite: the first two Canadian occurrences; Can. Mineral., vol. 22, p. 253-258, 1984.

Famous mineral localities: the Sterling mine, Antwerp, New York; Mineralogical Record, vol. 15, p. 199-216, 1984.

Garyansellite, a new mineral from Yukon Territory, Canada; Amer. Mineral., vol. 69, p. 207-209, 1984.

Magnussonite: new chemical data, an occurrence at Sterling Hill, New Jersey, and new data on a related phase from the Brattfors mine, Sweden; Amer. Mineral., vol. 69, p. 800-802, 1984.

Minehillite, a new layer silicate from Franklin, New Jersey, related to reyerite and transcottite; Amer. Mineral., vol. 69, p. 1150-1155, 1984.

Thermogravimetric analysis under vacuum with simultaneous evolved gas analysis has been used to provide data on the volatile components of 12 new minerals. Systematic studies of chrysotile asbestos fibres of a variety of amphiboles and of minerals with minor H_2O content such as garnets are in progress.

INVERTEBRATE/INVERTÉBRÉS

675. BAMBER, E.W., Geol. Surv. Can.:
Carboniferous and Permian biostratigraphy and coral faunas, western and northern Canada, 1971-.

676. BARNES, C.R., Memorial Univ. (Earth Sciences):
Ordovician-Silurian conodont biostratigraphy and paleoecology, Anticosti Island, Quebec, 1975-.

677. BARNES, C.R., Memorial Univ. (Earth Sciences):
Cambro-Ordovician boundary and Tremadoc conodont biostratigraphy, Cow Head Group, western Newfoundland, 1981-.

678. BARNES, C.R., FAHRAEUS, L.E., JOHNSTON, D.I., Memorial Univ. (Earth Sciences):
Arenig conodonts biostratigraphy of the Cow Head Group, western Newfoundland, 1982-; M.Sc. thesis (Johnston).

679. BARNES, C.R., JAMES, N.P., POHLER, S., Memorial Univ. (Earth Sciences):
Conodont biofacies and carbonate lithofacies, Arenig megabreccias Cow Head Group, western Newfoundland, 1982-; Ph.D. thesis (Pohler).

680. BOLTON, T.E., Geol. Surv. Can.:
Ordovician-Silurian biostratigraphy, Southampton Island, District of Keewatin, 1970-.

681. BOYCE, D., KNIGHT, I., STOUGE, S., Newfoundland Dept. Mines and Energy, Univ. Copenhagen:
Paleontological support – Newfoundland and biostratigraphy of the Cambrian-Ordovician carbonates in western Newfoundland, 1984-87.

PALEONTOLOGY/PALÉONTOLOGIE

See:

Cambrian-Ordovician biostratigraphic investigations, Great Northern Peninsula, western Newfoundland; Newfoundland Dept. Mines and Energy, Report 85-1, p. 60-70, 1985.

Biostratigraphic and palaeoenvironmental significance of newly discovered palaeoniscid fish and vascular plant remains from the Snakes Bight Formation (Anguille Group), near Codroy, southwestern Newfoundland; ibid., p. 71-73, 1985.

Provide samples (micro and macrofossils) in sections in consultation with Ian Knight. Also survey of various fossil localities in Newfoundland to report on carbonate terrane biostratigraphy, and fossil localities within Newfoundland, systematics of trilobites of St. George Group, and report on the biostratigraphy of St. George Group.

682. CAMERON, B.E.B., Geol. Surv. Can.:
Foraminiferal biostratigraphy of the Pacific Margin, 1969-.

See:

Sedimentary framework of the Fraser River delta, British Columbia: preliminary field and laboratory results; Geol. Surv. Can., Paper 85-1A, p. 717-722, 1985.

683. CAMERON, B.W., Acadia Univ. (Geology):
Brachiopods from Playa Lake deposits of the Triassic Blomidon Formation, southern Fundy Basin, Nova Scotia, 1984-86.

Fossils are rare in the non-marine units of the Fundy Group. Two thin clayey mudstone layers have yielded abundant branchiopods that are being studied. Biometrical analyses will be included. No associated ostracodes were found.

684. CHATTERTON, B.D.E., Univ. Alberta (Geology):
Silurian trilobites of Canada, 1980-.

See:

Silurian cheirurid trilobites from the Mackenzie Mountains, northwestern Canada; Palaeontographica Canadiana, vol. 184, 1984.

To document the trilobite faunas from Silurian strata of Canada in order to study their biogeography, biostratigraphy and paleoecology.

685. COPELAND, M.J., Geol. Surv. Can.:
Paleozoic ostracodes of Canada, 1972-.

686. COPPER, P., Laurentian Univ. (Geology):
Morphology (functional), ecology and evolution of Paleozoic invertebrates, reef ecosystems, mass extinction.

687. de FREITAS, T., Univ. Western Ontario (Geology):
Paleoecology and paleontology of Silurian patch reefs, Cornwallis Island, District of Franklin, 1985-87; M.Sc. thesis.

688. DIXON, O.A., Univ. Ottawa (Geology):
Ordovician and Silurian heliolitid corals of Anticosti Island, Quebec, and Canadian Arctic, 1968-.

689. ELIAS, R.J., KNAPP, C.J., McAULEY, R.J., Univ. Manitoba (Earth Sciences):
Ordovician solitary rugose corals of North America; M.Sc. thesis (Knapp, McAuley).

See:

Paleobiology of solitary rugose corals, Late Ordovician of North America; Palaeontogr. Amer., vol. 54, p. 533-537, 1984.

Late Ordovician solitary rugose corals of the eastern Klamath Mountains, northern California; J. Paleontol., vol. 58, p. 1203-1214, 1984.

Paleobiologic significance of fossulae in North American Late Ordovician solitary rugose corals; Paleobiology, vol. 10, p. 102-114, 1984.

690. GRADSTEIN, F.M., Geol. Surv. Can.:
Biostratigraphic history of the Mesozoic-Cenozoic sediments of the Grand Banks, Northwest Newfoundland and Labrador shelves (based on Foraminifera and Ostracoda), 1974-.

691. GRADSTEIN, F.M., Geol. Surv. Can.:
Taxonomy, biostratigraphy, paleoecology and paleobiogeography of Mesozoic-Cenozoic agglutinated Foraminifera, 1979-.

692. GRADSTEIN, F.M., Geol. Surv. Can.:
Digital microfossil shape, 1983-.

693. HALL, R., STRONACH, N., Univ. Calgary (Geology and Geophysics):
Lithostratigraphy and biostratigraphy of the Jurassic Fernie Formation, 1978-84; Ph.D. thesis (Stronach).

See:

Lithostratigraphy and biostratigraphy of the Fernie Formation, Canadian Rocky Mountains; Can. Soc. Petrol. Geologists, Mem. 9, p. 233-248, 1984.,

694. HIGGINS, A.C., Geol. Surv. Can.:
Carboniferous and Permian biostratigraphy and conodont faunas, western and northern Canada, 1983-.

695. KARROW, P.F., MILLER, B.B., MACKIE, G.L., Univ. Waterloo (Earth Sciences), Kent State Univ. (Geology), Univ. Guelph:
Molluscs of Huron basin glacial lakes, 1964-.

Assessment of the Huron basin is largely complete, with 108 taxa from 52 sites ranging from 12 000 to 4 000 years old.

696. KENNEDY, D.J., Brock Univ. (Geological Sciences):
Revision of conodonts described by Furnish, 1938 from the Lower Ordovician Blue Earth Siltstone, Minnesota, 1981-.

697. KENNEDY, D.J., BARNES, C.R., Brock Univ. (Geological Sciences), Memorial Univ. (Earth Sciences):
Conodont biostratigraphy from the Upper Cambrian-Middle Ordovician, Banff-Jasper National Park, Alberta, 1976-.

698. KOBLUK, D.R., Univ. Toronto (Geology):
Cavity-dwelling organisms in Lower Paleozoic reefs, 1983-85.

699. LENZ, A.C., Univ. Western Ontario (Geology):
Morphologic variation of **Dicaelosia** and **Epitomyonia** (Brachiopoda) from the Cape Phillips Formation, Cornwallis and Baillie Hamilton islands, Arctic Island, 1984-85.

700. LENZ, A.C., MELCHIN, M.J., Univ. Western Ontario (Geology):
Preliminary studies of retiolitids from the Cape Phillips Formation, central Arctic Island, 1984-.

701. MATTHEWS, J.V., Jr., Geol. Surv. Can.:
Late Cenozoic fossil insects and Late Cenozoic paleoecology, 1973-.

702. McCRACKEN, A.D., Univ. Western Ontario (Geology):
Late Ordovician and Early Silurian stratigraphy and conodonts, northern Canadian Cordillera, 1978-86; Ph.D. thesis.

703. McGUGAN, A., HENDERSON, C., Univ. Calgary (Geology and Geophysics):
1. Permian conodonts and biostratigraphy; Ph.D. thesis (Henderson). 2. Cretaceous Foraminifera. 3. Living benthic Foraminifera – relation to substrate, turbulent zone, southern Vancouver Island.

See:

Carboniferous and Permian stratigraphy, north Saskatchewan Valley, Canadian Rocky Mountains, western Alberta; Bull. Can. Petrol. Geol., Dec. 1984.

1. The Permian Ishbel Group is now divided into subzones of Wolfcampian to Leonardian age. 2. Cretaceous submarine debris flows and their foraminiferal content are being studied. Also subsurface of Qualicum area, Vancouver Island. 3. Foraminiferal microenvironments related to substrate have been recognized.

704. McNEIL, D.H., Geol. Surv. Can.:
Mesozoic and Cenozoic Foraminifera of the Arctic western mainland of Canada, 1978-.

See:

Cenozoic stratigraphy of the Mackenzie Delta, Northwest Territories; Geol. Surv. Can., Bull. 336, 1984.

Geology and biostratigraphy of the Dome Gulf et al. Hunt Kopanoar M-13 well, Beaufort Sea; Geol. Surv. Can., Paper 82-13, 1984.

705. MELCHIN, M.J., Univ. Western Ontario (Geology):
Late Ordovician to Wenlock Chitinozoa, Arctic Islands, 1982-87; Ph.D. thesis.

706. MUNRO, I., DIXON, O.A., NOWLAN, G.S., Univ. Ottawa (Geology):
Conodont biostratigraphy of lower Ordovician rocks in the Ottawa-Brockville-Montreal region, 1983-87; Ph.D. thesis (Munro).

707. NARBONNE, G.M., Queen's Univ. (Geological Sciences):
Trace fossils in Lower Paleozoic carbonates, 1975-.

Studies of trace fossils in Lower Paleozoic carbonates of eastern and arctic Canada aid our understanding of the depositional and diagenetic factors that control their distribution.

708. NARBONNE, G.M., Queen's Univ. (Geological Sciences):
Paleoecology of Silurian carbonates of arctic Canada, 1975-84.

709. NARBONNE, G.M., FRITZ, W.H., NOWLAN, G.S., HOFMANN, H.J., OSBORNE, D., Queen's Univ. (Geological Sciences), Geol. Surv. Can.:
The Precambrian-Cambrian transition, Wernecke Mountains, Yukon Territory, 1982-.

The Wernecke Mountains are unique in exhibiting abundant, well-preserved specimens of all the fossil groups used to define the Precambrian-Cambrian boundary. Studies of these assemblages will aid local and intercontinental correlation, and will help elucidate the pattern of evolution across the Precambrian-Cambrian boundary.

710. NOBLE, J.P.A., POPE, C., LEE, D.J., YOUNG, G.A., Univ. New Brunswick (Geology):
Faunal and sedimentary history of the north Appalachian Orogen, Silurian-Devonian, 1976-90.

See:

The Llandovery-Wenlock heliolitid corals from New Brunswick, Canada; J. Paleontol., vol. 58, p. 867-884, 1984.

Stratigraphy and structure of the Ordovician, Silurian and Devonian of northern New Brunswick; Field Guide 4, Geol. Assoc. Can., Annual meeting, 1985.

711. NORRIS, A.W., Geol. Surv. Can.:
Brachiopods of the lower Upper Devonian Waterways Formation of northeastern Alberta, 1977-.

712. NOWLAN, G.S., Geol. Surv. Can.:
Paleozoic conodonts of eastern Canada, 1977-.

See:

Late Cambrian and Early Ordovician conodonts from the Franklinian miogeosyncline, Canadian Arctic Island; J. Paleontol., vol. 59, no. 1, p. 96-122, 1985.

713. ORCHARD, M.J., Geol. Surv. Can.:
Conodont biostratigraphy and biogeography in the Canadian Cordillera, 1981-.

See:

Pennsylvanian, Permian and Triassic conodonts from the Cache Creek Group, Cache Creek, southern British Columbia; Geol. Surv. Can., Paper 84-1B, p. 197-206, 1984.

Early Permian conodonts from the Harper Ranch beds, Kamloops area, southern British Columbia; ibid., p. 207-215, 1984.

Carboniferous, Permian and Triassic conodonts from the central Kootenay Arc, British Columbia: constraints on the age of the Milford, Kaslo and Slocan groups; Geol. Surv. Can., Paper 85-1A, p. 287-300, 1985.

Conodonts and stratigraphy of upper Paleozoic limestones in Cariboo gold belt, east-central British Columbia; Can. J. Earth Sci., vol. 22, no. 4, p. 538-552, 1985.

714. PARKINS, W.G., DIXON, O.A., Univ. Ottawa (Geology):
Late Silurian rugose corals of Somerset and Cornwallis islands, Arctic Canada, 1977-85; Ph.D. thesis (Parkins).

715. PROSH, E.C., Univ. Western Ontario (Geology):
Paleoecology and paleontology of a late Early Devonian patch reef complex, Lowther Island, Arctic Islands, 1981-86; Ph.D. thesis.

716. RIVA, J., Université Laval (Géologie):
Ordovician graptolites, 1967-.

Engaged in all sorts of research projects which I am trying to bring to completion as accurately and precisely as possible. Most of these projects are taxonomic, requiring extensive reviews of published collections going back to the middle of the last century. A mass of errors surround past works due to the fact that past researchers worked alone, did litle consulting and had inadequate stereomicroscopes.

717. RUDKIN, D.M., Royal Ontario Mus. (Invert. Palaeontology):
Systematics, biostratigraphy and palaeoecology of **Glossopleura** Zone trilobites, Stephen Formation, Middle Cambrian, British Columbia, 1982-86.

Preliminary results presented at Canadian Paleontology and Biostratigraphy Seminar in Ottawa, Sept. 1984; during 1984 field season additional material recovered from Mt. Field for first time; preparation of descriptions underway.

718. RUDKIN, D.M., Royal Ontario Mus. (Invert. Palaeontology):
Additional appendage bearing trilobites from the Middle Cambrian Burgess shale, British Columbia, 1984-85.

Walcott described 4 species of appendage bearing trilobites from the Burgess shale. Whittington has recently redescribed and refigured 2 of these, **Olenoides serratus** and **Kootenia burgessensis**. Of the remaining 2 taxa, one is not a trilobite; the second is confirmed. Both will be redescribed and illustrated.

719. RUDKIN, D.M., Royal Ontario Mus. (Invert. Palaeontology):
Exoskeletal abnormalities in four trilobites, 1984-85.

See:

Can. J. Earth Sci., vol. 22, no. 3, p. 479-483, 1985.

720. TOZER, E.T., Geol. Surv. Can.:
Canadian Triassic Ammonoidea and Bivalvia, 1967-.

721. TRIPP, R.P., RUDKIN, D.M., Royal Ontario Mus. (Invert. Palaeontology):
North American species of **Isotelus** Dekay (Trilobita), 1985-87.

To evaluate the validity and relationships of all published species of **Isotelus** in North America with description and illustration of significant taxa. Assessment of closely related Isotelines and material from outside North America.

722. UYENO, T.T., Geol. Surv. Can.:
Conodont biostratigraphy of Siluro-Devonian rocks of the Arctic Islands, 1968-.

723. VILKS, G., Geol. Surv. Can.:
Quaternary biostratigraphic methods for marine sediments, 1983-.

724. VON BITTER, P.H., Royal Ontario Mus. (Invert. Palaeontology):
Palaeoecology and biostratigraphy of Lower Carboniferous (Windsor and Codroy groups) conodonts, Atlantic Provinces, Canada, 1971-.

725. VON BITTER, P.H., HIGGINS, A.C., Royal Ontario Mus. (Invert. Palaeontology), Geol. Surv. Can.:
Conodont biostratigraphy and palaeoecology, Pennsylvanian and Permian, Arctic Islands, Canada, 1982-.

Detailed sampling in 1982 of the Tanquary Fiord area, Ellesmere Island, was followed by sampling on the Sabine Peninsula, Melville Island, in 1984. Further sampling to be carried out on Melville in 1985.

726. VON BITTER, P.H., MERRILL, G.K., Royal Ontario Mus. (Invert. Palaeontology), Univ. Houston:
Pennsylvanian conodonts of North America – their taxonomy, palaeoecology and biostratigraphy, 1968-.

727. VON BITTER, P.H., SANDBERG, C., ORCHARD, M.J., Royal Ontario Mus. (Invert. Palaeontology), U.S. Geol. Surv., Geol. Surv. Can.:
Mestognathus (Conodontophorida), its phylogeny, ontogeny and palaeoecology, 1985-.

728. WALL, J.H., Geol. Surv. Can.:
Reconnaissance of Mesozoic Foraminifera of Arctic Islands, 1972-.

729. WILSON, M.V.H., WIGHTON, D.C., Univ. Alberta (Zoology):
Fossil insects from the Paleogene of western Canada, 1975-.

See:

Fossil aquatic oribatid mites (Acari: Oribatidae: Hydrozetidae: **Hydrozetes**) from the Paleocene of south-central Alberta, Canada; Can. Entomol., vol. 116, p. 773-775, 1984.

Current emphasis is on systematics of Paleocene dragonflies (Odonata: Aeshnidae) from Alberta, and a related form newly discovered in the Oligocene Kishenehn Formation of Montana.

VERTEBRATE/VERTÉBRÉS

730. DINELEY, D.L., LOEFFLER, E.J., LIU, Y-h, Univ. Bristol (Geology):
Early vertebrates from the Late Silurian-Early Devonian of Somerset and Prince of Wales Islands, Northwest Territories, 1964-.

See:

A new actinolepid arthrodire from the Lower Devonian of Arctic Canada; Palaeontology, vol. 27, pt. 4, p. 875-888, 1984.

Devonian vertebrates in biostratigraphy; Proc. Linn. Soc. New South Wales, vol. 107, pt. 3, p. 185-196, 1984.

Studies of the arthrodires and the pteraspidid Heterostraci are completed and published; work continues on the abundant and diverse cyathaspidid and traquairaspidid Heterostraci, with description of the larger cyathaspidids almost finished. More collecting is planned for the 1985 field season.

731. EDMUND, A.G., Royal Ontario Mus. (Vert. Palaeontology):
A review of the genus **Eremotherium** (Edentata, Mammalia), 1958-87.

With the assistance of 4th year student Jim Riosa, all known North and South American specimens have been examined and compared. One wide ranging species, referred to **E. laurillardi** is by far the most common. A smaller species referred to **E. chiliense** is confined to western South America, and there may be a less common Pleistocene species, known only from fragmentary material from Florida. A preliminary paper is being prepared.

732. EDMUND, A.G., Royal Ontario Mus. (Vert. Palaeontology):
Tertiary and Quaternary radiation of the giant armadillos (Pampatheriidae:Mammalia) in South America, 1964-86.

See:

The giant armadillos of the Pleistocene of North America; in The Evolution and Ecology of the Xenarthra, G. Montgomery, editor, Smithsonian Inst. Press, Washington, DC, 1985.

Two major lineages, based mainly on osteoderms, represent most pampathere species. Two new species are recognized from Argentina-Uruguay, and another from the La Venta Miocene fauna of Colombia. Several papers are in various stages of preparation.

733. EDMUND, A.G., Royal Ontario Mus. (Vert. Palaeontology):
Osteology and functional morphology of the Pleistocene giant armadillo **Holmesina septentrionalis** (Pampatheriidae, Xenarthra, Mammalia), 1965-86.

Dissection of preserved Recent armadillos has aided in the interpretation of skull structures in fossil **Holmesina**. Compilation of metric data and illustrations continues, with manuscript completion expected by 1986.

734. EDMUND, A.G., Royal Ontario Mus. (Vert. Palaeontology):
Evolution of a single phyletic line of giant armadillos (Pampatheriidae, Mammalia) in Florida during the Pleistocene, 1975-85.

A good series of well-preserved specimens, mainly from Florida, reveals a chronocline from the Blancan Land Mammal Stage to post Wisconsin extinction in the genus **Holmesina**. Changes include gradual size increase, modification of the ankle joint and "molarization" of anterior teeth. Previous assignment by others to the Argentinian genus **Kraglievichia** is incorrect, as is derivation from the La Venta (Miocene) pampathere of Colombia.

735. EDMUND, A.G., Royal Ontario Mus. (Vert. Palaeontology):
The Daytona Beach bonebed, a (?) Sangamonian deposit from Volusia County, Florida, 1975-86.

Large numbers of well preserved bones, plant remains, fresh water molluscs, etc. were recovered from a peat lens with a radiocarbon date in excess of 40 000 ybp. A number of specialists are preparing reports which will describe the fauna, age and paleoecology of the site.

736. EDMUND, A.G., Royal Ontario Mus. (Vert. Palaeontology):
The body armour of giant armadillos (Pampatheriidae, Xenarthra, Mammalia), 1980-84.

See:

The armor of fossil giant armadillos (Pampatheriidae, Xenarthra, Mammalia); Texas Mem. Mus., 1985.

Manuscript accepted 1984, galley proof spring 1985. Major conclusions indicate two major phyletic lines of giant armadillos, one essentially Argentinian, the other covering northern South America and much of southeastern U.S.A. These are distinguished by shape and ornamentation of osteoderms, the most commonly preserved portions of the animals. Except for descriptions of new forms, this project is complete.

737. EDMUND, A.G., McANDREWS, J.H., Royal Ontario Mus. (Vert. Palaeontology, Palynology):
Quaternary paleoecology of a sinkhole and watercourses in Sarasota County, Florida, 1984-86.

A 24 m pollen core was obtained in shallow water without reaching the bottom. Analysis is underway. Excavations and study of air photos indicate a (?) Holocene redeposition of vertebrate remains near the shoreline, encouraging a future study of the taphonomy.

738. EDMUND, A.G., McDONALD, G., Royal Ontario Mus. (Vert. Palaeontology):
A description of Scelidodon from the Pleistocene tar seeps of Ecuador and Peru, and review of the scelidotheres (Mylodontidae, Mammalia), 1978-85; Ph.D. thesis (McDonald).

Much of the manuscript, illustrations, tables and statistics are complete. A large number of taxa have been shown to be junior synonyms or indeterminate, and new data is presented on the phylogeny of the scelidotheres.

739. EDMUND, A.G., SEYMOUR, K., Royal Ontario Mus. (Vert. Palaeontology):
A vertebrate fauna of Holocene Age from Lake Flirt deposits of Sarasota County, Florida, 1984-85.

Study of Holocene fauna containing large numbers of small vertebrate remains from a shallow water deposit (Lake Flirt sand), locally called "Little Jaws Site", Sarasota County, Florida. Occasional occurrence of worked bone points suggests food gathering by (?) Paleo-Indians.

740. HARINGTON, C.R., FITZGERALD, G.R., YOUNGMAN, P.M., National Mus. Natural Sci. (Paleobiology):
Quaternary vertebrates of Canada, 1965-.

See:

Mammoths, bison and time in North America; in Quaternary Dating Methods, Elsevier Science Publishers, Amsterdam, p. 299-309, 1984.

Quaternary marine and land mammals and their paleoenvironmental implications – some examples from northern North America; Sp. Publ. Carnegie Mus. Nat. Hist., no. 8, p. 511-525, 1984.

Harington is working on Yukon ice age vertebrates; Fitzgerald is working on ice age remains of waterfowl from the Yukon; Youngman is working on small carnivores from ice age deposits of the Yukon.

741. MOSSMAN, D.J., Mount Allison Univ. (Geology):
Vertebrate footprints from Mississippian and Pennsylvanian sediments of Nova Scotia – Compilation and description of all known forms, 1974-.

742. NEUMAN, A.G., WILSON, M.V.H., Univ. Alberta (Zoology):
Triassic marine fishes of western Canada, 1984-86; M.Sc. thesis (Neuman).

Marine Triassic fish localities have been discovered in the foothills of western Alberta and eastern British Columbia. Studies on the fishes from these localities, with special reference to the "subholosteans", include identification of taxa, as well as discussion of systematic and stratigraphic importance.

743. RUSSELL, D.A., National Mus. Natural Sci. (Paleobiology):
Dinosaurs of North America, 1984-.

See:

The gradual decline of the dinosaurs – fact or fallacy?; Nature, vol. 307, p. 360-361, 1984.

A check list of the families and genera of North American dinosaurs; Syllogeus, vol. 53, p. 1-35, 1984.

744. STORER, J.E., Saskatchewan Museum Nat. Hist.:
Eocene-Oligocene mammals of the Cypress Hills Formation (Uintan-Chadronian) of Saskatchewan, 1979-.

See:

Mammals of the Swift Current Creek local fauna (Eocene:Uintan), Saskatchewan; Nat. Hist. Contrib., Saskatchewan Museum Nat. Hist., No. 7, 158 p., 1984.

Fossil mammals of the Southfork local fauna (early Chadronian) of Saskatchewan; Can. J. Earth Sci., vol. 21, no. 12, p. 1400-1405, 1984.

Large samples of small fossil vertebrates were taken from the Lac Pelletier area in 1984. Two local faunas are represented, both apparently correlating near the Eocene-Oligocene boundary.

745. WILSON, M.V.H., Univ. Alberta (Zoology):
Eocene lake environments: depth and distance-from-shore variation in fish, insect, and plant assemblages, 1975-.

Additional work is underway on the mechanism of varve formation in the Eocene lake beds at Horsefly, British Columbia.

746. WILSON, M.V.H., Univ. Alberta (Zoology):
Eocene fossil fishes of western North America, 1975-.

A manuscript is in preparation on an Eocene fish assemblage from Quilchena, B.C. Additional work is on the osteology and relationships of the salmonid **Eosalmo**.

747. WILSON, M.V.H., Univ. Alberta (Zoology):
Paleocene freshwater fishes of western Canada, 1978-.

See:

Osteology of the Paleocene teleost **Esox tiemani**; Palaeontology, vol. 27, pt. 3, p. 597-608, 1984.

Important new discoveries of articulated specimens of percopsids, osteoglossids, and a problematic taxon were made in 1984.

748. WILSON, M.V.H., Univ. Alberta (Zoology):
Marine Mesozoic fishes of western Canada, 1983-.

PALEOBOTONY/PALYNOLOGY/ PALÉOBOTANIQUE ET ANALYSE POLLINIQUE

749. ACHAB, A., INRS-Géoressources:
Chitinozoaires de l'Ordovicien inférieur et moyen du Québec, 1982-85.

Voir:

Chitinozoaires de l'Ordovicien moyen de subsurface de l'Île Anticosti; Review of Palaeobotany and Palynology, vol. 43, p. 123-143, 1984.

750. BARSS, M.S., Geol. Surv. Can.:
Palynological zonation of the Carboniferous and Permian rocks of Atlantic Provinces, Gulf of St. Lawrence and northern Canada, 1968-.

751. BASINGER, J.F., Univ. Saskatchewan (Geological Sciences):
Eocene plants of south-central British Columbia, 1974-.

See:

Seed cones of **Metasequoia milleri** from the Middle Eocene of southern British Columbia; Can. J. Botany, vol. 62, p. 281-289, 1984.

The restricted coal basins of southern British Columbia have yielded an abundance of fossil plant materials. The fossil floras represent warm temperate assemblages and are often diverse. Continuing work will aid in our interpretation of temperate plant distribution in the early Tertiary and the evolution of some of the early members of some modern plant families.

752. BASINGER, J.F., Univ. Saskatchewan (Geological Sciences):
Early Tertiary floras of western and northern Canada, 1982-.

Involves extensive collection of fossil plants from Saskatchewan, Alberta, Yukon, and Northwest Territories. The aim of this study is to document diversity of early Tertiary temperate floras and distribution of taxa in addition to interpretation of evolution of northern temperate plants. Several of the principle Canadian coal basins of Paleocene age have been collected in a preliminary fashion and work on some taxa is currently underway.

753. BASINGER, J.F., Univ. Saskatchewan (Geological Sciences):
Early Cretaceous plants from the coal fields of western Alberta and northeastern British Columbia, 1984-.

Fossil floras associated with coal bearing rocks of the foothills of the Rocky Mountains have been collected sporadically for many years. Collections currently being carried out are aimed at providing a better understanding of correlation, paleogeography, and paleoecology. These fossil plants may also contribute to our study of origins and early evolution of the flowering plants.

754. BASINGER, J.F., ASH, S.R., Univ. Saskatchewan (Geological Sciences):
Late Triassic plants from the Heiberg Formation, Ellesmere and Axel Heiberg islands, 1984-.

Fossil plants discovered in the Heiberg Formation represent the first known from the high latitudes of North America. Future collections will provide information on the nature of boreal vegetation of the Triassic and the evolution of temperate plants in the early Mesozoic.

755. BASINGER, J.F., CHRISTOPHEL, D.C., Univ. Saskatchewan (Geological Sciences):
Eocene flowers and leaves of the Ebenaceae from southern Australia, 1980-85.

The earliest known remains of flowers assignable to the Ebenaceae (persimmon family) have been recovered from the late Eocene coal fields of Anglesea, Victoria, Australia. Leaves found in association with the flowers share unusual cuticular features with the sepals and probably represent the same taxon. Both flowers and leaves show similarity to modern persimmons.

756. BASINGER, J.F., DILCHER, D.L., Univ. Saskatchewan (Geological Sciences):
Bisexual flowers from the Cenomanian Dakota Formation of Kansas and Nebraska, 1980-85.

See:

Ancient bisexual flowers; Science, vol. 224, p. 511-513, 1984.

Toward the end of the Early Cretaceous, flowering plants were undergoing their first major phase of diversification. An abundance of these early angiosperms is preserved in the Dakota Formation. These fossils are contributing to a better understanding of angiosperm origins and early evolution. Small bisexual flowers indicate that reproductive mechanisms believed highly derived are in fact ancient and that phylogenetic systems of classification now widely used must be reevaluated.

757. BASINGER, J.F., SCHECKLER, S.E., Univ. Saskatchewan (Geological Sciences):
Fossil plants from Late Devonian turbidites of eastern Yukon, 1982-86.

Remains of **Archaeopteris fissilis** have been recovered from Frasnian turbidites of the Earn Group near Macmillan Pass, east-central Yukon. Lead/zinc mineralization occurred in equivalent rocks of the nearby Tom and Jason properties. The Yukon collection is the best available for this mid-latitude species of **Archaeopteris** and is providing valuable information on structure, reproduction, and distribution of **A. fissilis**.

758. DAVIES, E.H., Geol. Surv. Can.:
Biostratigraphy of the Atlantic Shelf and relevant areas, 1981-.

759. DAVIES, E.H., Geol. Surv. Can.:
Taxonomy, phylogeny and ecology of palynomorphs, 1981-.

760. DEMCHUK, T., Univ. Alberta (Geology):
Palynological zonation of Paleocene coal-bearing strata in central Alberta, 1984-85; M.Sc. thesis.

To obtain a stronger correlation between Paleocene coal seams from the Plains to the Foothills of central Alberta.

761. DEWEZ, V., GEURTS, M-A., PHIPPS, M., Université Ottawa (Géographie):
Repartition de la White River Ash et son impact sur la végétation, 1983-85.

Voir:

Répartition de la cendre volcanique White River Ash selon les caractéristiques du milieu et son impact sur la végétation, Territoire du Yukon, Canada; Bull. Société Belge de Géologie, Tome 93, fasicule 4, 1985.

762. EDLUND, S.A., Geol. Surv. Can.:
Vegetation distribution and relationships to surficial materials, Arctic Canada, 1976-.

See:

Lichen-free zones as neoglacial indicators on western Melville Island, District of Franklin; Geol. Surv. Can., Paper 85-1A, p. 709-712, 1985.

763. GEURTS, M-A., BÉLIVEAU, M., Université Ottawa (Géographie):
Etude palynologique des sols forestiers minéraux dans le parc de la Gatineau (Québec), 1979-84; thèse de maîtrise (Béliveau).

764. GEURTS, M-A., CAMPBELL, I., LAGAREC, D., Université Ottawa (Géographie, Géologie):
Etude palynologique dans la chaîne Ruby Sud Ouest Yukon, 1981-87.

Les analyses polliniques sont en cours, la thèse de 4e année sera déposée en avril 1985, et les apports du pollen de **Pinus contorta** dans le Ruby Range manuscript (Lagarec et Geurts) soumis au journal canadien de botanique en novembre 1984.

765. GEURTS, M-A., DE BASTIANI, P., Université Ottawa (Géographie):
Palynologie dans le bassin de Williscroft Creek, Kluane Range, Sud Ouest Yukon, 1983-85; thèse de maîtrise (de Bastiani).

766. GEURTS, M-A., GUAY, F., Université Ottawa (Géographie):
Palynologie et evolution climatique holocène dans la vallée de la Coppermine (Territoire de Nord-Ouest), 1979-84; thèse de maîtrise (Guay).

767. GEURTS, M-A., LAGAREC, D., GUAY, G., Université Ottawa (Géographie):
Palynostratigraphie et variations climatiques post-glaciaires, 1980-84.

Voir:

Modèle d'interprétation palynologique en fonction des masses d'air et des spectres polliniques contemporains en milieu nordique; Bull. Société Belge de Géologie, Tome 93, fasicule 4, 1985.

768. GEURTS, M-A., WANG, X., BEAUDET, H., Université Ottawa (Géographie, Géologie):
Palynologie de la région d'Aishihik Yukon, 1983-87; thèse de doctorat (Wang), thèse de maîtrise (Beaudet).

Prospections et analyses en cours.

769. JARZEN, D.M., National Mus. Natural Sci. (Paleobiology):
Mesozoic and Cenozoic vegetation of Canada, 1970-.

See:

The fossil pollen record of the Pandanaceae; Gardens Bulletin (Singapore), vol. 36, no. 2, p. 163-175, 1984.

A study on the pollen morphology of the Bromeliaceae.

770. LICHTI-FEDEROVICH, S., Geol. Surv. Can.:
Diatom analysis and paleoecological studies of Quaternary sediments, 1972-.

771. McGREGOR, D.C., Geol. Surv. Can.:
Silurian and Devonian spores of Canada, 1975-.

772. McINTYRE, D.J., Geol. Surv. Can.:
Upper Mesozoic and Cenozoic palynology of western and northern Canada, 1982-.

773. MOTT, R.J., Geol. Surv. Can.:
Quaternary palynology, 1969-.

774. SINGH, C., Alberta Research Council (Geol. Surv.):
Palynological study of the coal-bearing Late Cretaceous-Paleocene strata in the Red Deer River Valley, Alberta, 1973-87.

775. SINGH, C., Alberta Research Council (Geol. Surv.):
Palynological study of the Lower Cretaceous oil sands deposits of Alberta, 1983-87.

776. SWEET, A.R., Geol. Surv. Can.:
Palynological studies of Mesozoic and Tertiary coal measures in western and northern Canada, 1971-.

777. UTTING, J., Geol. Surv. Can.:
Palynology of Carboniferous, Permian and Triassic rocks of northern and western Canada, 1981-.

778. VINCENT, E.E., BASINGER, J.F., Univ. Saskatchewan (Geological Sciences):
Fossil flora of the Ravenscrag Formation, southwestern Saskatchewan, 1982-; Ph.D. thesis (Vincent).

The Paleocene Ravenscrag Formation is well exposed in the eastern Cypress Hills and yields an abundance of plant fossils. The many localities available contribute to a better understanding of diversity and community structure in the early Tertiary temperate floras. Several taxa are especially well represented and preserved and are enabling interpretation of evolution of some Tertiary temperate plants.

779. ZIPPI, P.A., NORRIS, G., Univ. Toronto (Geology):
Mesozoic palynology of the Moose River Basin, Ontario, 1982-86; Ph.D. thesis (Zippi).

See:

Problems and some palynostratigraphic solutions to correlations of lignitic strata in the Moose River Basin, Ontario; Ontario Geol. Surv. Geoscience Seminar, 1984.

Palynostratigraphy of Lower Cretaceous fluvial deposits and lignite occurrence in the Moose River Basin, Ontario; Geol. Assoc. Can.-Mineral. Assoc. Can., Programs with Abstracts, vol. 10, p. A70, 1985.

The Cretaceous palynostratigraphy of the Moose River Basin is under examination using material from 36 OGS drillcores. The Mattagami Fm. contains a palynoflora consistant with deposition in an anastomosed fluvial system. One hundred twenty species of spores, pollen, and algal cysts have been identified and are used to establish a biostratigraphic zonation. Areal distribution of the Albian sediments by biozones shows changing trends of the depositional system.

780. ZODROW, E.L., University College of Cape Breton (Geology):
Pecopteris Brongniart of North America, 1980-.

The foliage genus **Pecopteris** occurs frequently in plant fossil assemblages in the coal-bearing beds of the Sydney area. The genus is important for biostratigraphical studies because it is rare in the lower part of the Upper Carboniferous but increases rapidly in number of species and number of specimens encountered in the Westphalian D and remains common throughout the upper part of the Upper Carboniferous. In this study an attempt will be made to sort out the Sydney pecopterid material, assess its biostratigraphical value and integrate the results with North American material for refinement of European correlation (Cape Breton Island occupied a position between Europe and North America in terms of paleobiostratigraphy and was the major part of the Acadian floral province within the Eurameric, and Amerosinian, floral realm).

781. ZODROW, E.L., University College of Cape Breton (Geology):
Odontopteris Brongniart in the Upper Carboniferous of Canada, 1981-.

As a result of re-examining macrofloral specimens from the Upper Carboniferous of Eastern Canada that were referred to the morphogenus **Odontopteris** by Bunbury, Dawson, Bell, Arnold and Zodrow, and considering recent collections by the author from the Sydney Coalfield, these conclusions are warranted: 1) **Odontopteris** indisputably entered the record at the level of the II Lloyd Cove Seam; 2) most of the earlier records are generically reassigned to either **Pecopteris** Brongniart or **Eusphenopteris** Novik; and 3) three odontopterid species are recognized in the Canadian Carboniferous and they include **O. cantabrica**, **O. schlotheimii**, and **O. reichiana**. The chronostratigraphical implications of the results are analyzed and found to be consistent with previous work by the author that placed the Westphalian-Stephanian boundary at a level below the Lloyd Cove Seam.

PETROLOGY/PÉTROLOGIE

EXPERIMENTAL/EXPÉRIMENTAL

782. BRYNDZIA, L.T., SCOTT, S.D., Univ. Toronto (Geology):
Stability and compositional variation of Fe-Mg chlorites as a function of P-T-A_{O_2}-A_{S_2}, 1980-85; Ph.D. thesis (Bryndzia).

Observations in nature of systematic decreases in Fe/(Fe+Mg) in chlorite, approaching a sulfide ore body have been successfully modelled experimentally in terms of the relative stability of iron chlorite. Such decreases are consistent with increasing A_{O_2} or A_{O_2} and A_{S_2} for coexisting Mag or Mag and PO respectively, at a given P,T and A_{H_2O}.

783. DOYLE, C.D., NALDRETT, A.J., Univ. Toronto (Geology):
Activity-composition relations of Ni, Cu, and Pt in silicate melts and the segregation of magmatic sulfide ores, 1984-86.

To determine the controls on the solution of components in mafic magma and magmatic ores so the differentiation of sulfide-oxide liquids from natural melts can be modelled. We are presently working on the solution of NiO in mafic liquids.

784. GITTINS, C.A., Univ. Toronto (Geology):
Phase relations in alkalic carbonatite magma erupted at Oldoinyo Lengai Volcano, Tanzania, 1985.

785. GITTINS, J., BECKETT, M., Univ. Toronto (Geology):
The effect of alkalies on the solubility of pyrochlore in calcite-dolomite carbonatite magmas, 1984; M.Sc. thesis (Beckett).

Extensive regions of liquid exist at 750°C in the systems Na_2CO_3-calcite-dolomite and K_2CO_3-calcite-dolomite at k kbar. Very extensive compositional regions exist with high ratios of liquid to crystals with only 20 wt percent of Na_2CO_3 and K_2CO_3. The solubility of pyrochlore is now being investigated in these liquid-rich regions.

786. JAMIESON, H., MEANWELL, S., Queen's Univ. (Geological Sciences):
Experimental solutions to petrological problems involving spinel.

Two projects have been initiated: one involves the calibration of coexisting spinel-olivine-pyroxene as an oxygen geobarometer, and the second involves the determination of liquid compositions in experimental runs containing quench crystals and phase relations in the system Fe_2O_3-FeO-MgO-SiO_2.

787. REEVES, M.J., RENAUT, R.W., Univ. Saskatchewan (Geological Sciences):
Studies in the artificial diagenesis of evaporites, 1985.

788. WANG, D., BRYNDZIA, L.T., SCOTT, S.D., Univ. Toronto (Geology):
Experimental calibration of the FeS content of alabandite coexisting with iron and troilite as a 'cosmobarometer', 1983-85.

Experiments have been completed over a wide range of pressures (0-7 kb) and temperatures (500-900°C). Compositions of natural meteoritic meteorites appear to be less iron rich than expected from our experiments.

IGNEOUS/ROCHES IGNÉES

789. BACHINSKI, S.W., Univ. New Brunswick (Geology):
Residual liquids of minettes and lamproites, 1984-85.

790. BACHINSKI, S.W., Univ. New Brunswick (Geology):
Sr and Nd isotopes in minettes, 1984-86.

791. BACHINSKI, S.W., Univ. New Brunswick (Geology):
Complex zoning in phlogopites of minettes, Ards peninsula, Northern Ireland, 1984-86.

792. BACHINSKI, S.W., Univ. New Brunswick (Geology):
Characterization of the minettes and other lamprophyres of the Ards peninsula, Northern Ireland, 1984-86.

793. BACHINSKI, S.W., Univ. New Brunswick (Geology):
A recommendation for discontinuing the use of 'soda-minette' as a rock name, 1985.

A draft of this manuscript has been sent to over 25 petrologists, world-wide, who work with minettes, lamproites, and other strongly potassic rocks, asking if they agree with the recommendation and, if so, would they be willing to have their names published as being in agreement; response to date has been unanimously in favor of the recommendation.

794. BACHINSKI, S.W., Univ. New Brunswick (Geology):
A re-examination of the minette of the Walsen Dike, Colorado, 1985-86.

795. BACHINSKI, S.W., BACHINSKI, D.J., Univ. New Brunswick (Geology):
Oxide minerals in minettes and related lamprophyres, 1981-86.

796. BACHINSKI, S.W., SIMPSON, E.L., Univ. New Brunswick (Geology), Univ. Regina (Geology):
Chemistry and morphology of feldspars of the Shaw's Cove minette, other lamprophyres, and lamproites, 1983-85.

797. BARAGAR, W.R.A., Geol. Surv. Can.:
Stratigraphy and petrology of the Natkusiak Basalts, Victoria Island, District of Franklin, 1975-.

798. BARR, S.M., MACDONALD, A.S., Acadia Univ. (Geology):
Petrology and geochemistry of igneous and metamorphic rocks in Thailand, 1976-.

See:

The Nan River mafic-ultramafic belt, northern Thailand: geochemistry and tectonic significance; Geol. Soc. Malaysia Bull., vol. 17, 1985.

In cooperation with geologists in the Department of Geological Sciences, Chiang Mai University, Thailand, we are studying the petrology, geochemistry, and geochronology of various upper Paleozoic to Mesozoic mafic and ultramafic belts in northern Thailand. These studies will lead to a better understanding of the tectonic history and economic potential of these zones.

799. BARR, S.M., MACDONALD, A.S., McMULLIN, D.W., FRENCH, V.A., CAMPBELL, R.M., SEXTON, A.J., SWINAMER, T., Acadia Univ. (Geology):
Granitoid rocks and associated mineral deposits, Cape Breton Island, Nova Scotia, 1978-88; M.Sc. thesis (McMullin, French, Campbell, Sexton).

See:

Granitoid rocks and associated copper skarn mineralization, Whycocomagh Mountain, Cape Breton Island; Maritime Sediments and Atlantic Geology, vol. 20, p. 43-55, 1984.

Since 1978, a programme of systematic mapping and geochemical studies of granitoid rocks in Cape Breton Island has been carried out, assisted by Honours and graduate students at Acadia University. In more recent years, this project has expanded to include regional mapping and has placed increasing emphasis on direct mineral deposit studies, both associated with granitoid rocks and with volcanic rocks which are of similar ages to the granitoid rocks.

800. BENN, K., THIBAULT, Y., DION, C., LAURENT, R., Université Laval (Géologie):
Etude pétrologique des roches ophiolitiques du versant sud du Mont Troodos, Chypre, 1984-86; thèses de maîtrises (Benn, Thibault, Dion).

Cartographie au 1:20 000 en voie de réalisation. Collaboration au projet ICRDG CYPRUS.

801. CAMERON, G.H., NALDRETT, A.J., Univ. Toronto (Geology):
A petrologic study of the critical zone of the eastern Bushveld Complex with special emphasis on the origin of PGE mineralization, 1984-86; M.Sc. thesis (Cameron).

A petrologic study has been undertaken with the aim of further constraining a genetic model for the origin of PGE mineralization in the Bushveld Complex (South Africa). XRF analyses for major and trace elements as well as electron microprobe analysis are underway. Neutron Activation analyses of the PGE's will be undertaken next fall after collection of suitable sample material this spring.

802. CURRIE, K.L., Geol. Surv. Can.:
Alkaline rocks in Canada, 1968-.

See:

A note on the solubility of quartz in supercritical water; Geol. Surv. Can., Paper 84-1B, p. 369-372, 1984.

803. CURRIE, K.L., Geol. Surv. Can.:
Granite studies in the Appalachians, 1973-.

See:

Distinction of Eocambrian and Lower Cambrian redbeds, Saint John area, southern New Brunswick; Geol. Surv. Can., Paper 85-1A, p. 699-702, 1985.

804. CURRIE, K.L., Geol. Surv. Can.:
Geology of the Northern Long Range Mountains, Newfoundland and adjacent areas, 1984-.

805. DAVIDSON, A., Geol. Surv. Can.:
Granite studies in the Ennadai-Rankin Inlet region, District of Keewatin, 1966-.

806. DAVIDSON, A., Geol. Surv. Can.:
Granite studies in the Slave Province, District of Mackenzie, 1971-.

807. DRESSLER, B., Ontario Geol. Surv.:
The footwall of the Sudbury structure, Ontario, 1984.

See:

The effects of the Sudbury event and the intrusion of the Sudbury igneous complex on the footwall rocks of the Sudbury structure; Ontario Geol. Surv., Spec. Vol. 1, 1984.

808. EMSLIE, R.F., Geol. Surv. Can.:
Geology, petrology and economic potential of the anorthosite suite in southern Labrador, 1975-.

809. EMSLIE, R.F., Geol. Surv. Can.:
Petrology, mineralogy, geochemistry and mineral potential of a Helikian non-orogenic granitic suite in central Labrador and adjacent Quebec, 1979-.

810. FUREY, D., Geol. Surv. Can.:
Geology and petrology of the Belleoram stock, Newfoundland, 1984-.

See:

Geology of the Belleoram pluton, southeast Newfoundland; Geol. Surv. Can., Paper 85-1A, p. 151-156, 1985.

811. GITTINS, J., FAWCETT, J.J., GORTON, M.P., HOGG, A., Univ. Toronto (Geology):
The petrology and geochemistry of the Prinsen af Wales Bjerge, East Greenland, 1982-85; M.Sc. thesis (Hogg).

812. GITTINS, J., GORTON, M.P., Univ. Toronto (Geology):
The petrogenesis of the ultramafic, ultrapotassic Batbjerg Intrusion, East Greenland, 1982-.

813. HALE, W.E., KAMBAMPATI, M.V., Univ. New Brunswick (Geology):
Geology Rambler Mine area, Baie Verte Peninsula, Newfoundland, 1980-84; M.Sc. thesis (Kambampati).

See:

Petrochemistry and tectonic setting of Boninites and other mafic rocks of the Rambler area, Newfoundland, Canada; Geol. Soc. Amer., Abstracts with Programs, vol. 17, no. 2, 1985.

814. HILL, J.D., Acadia Univ. (Geology):
Petrogenesis of igneous rocks in northern Labrador, 1977-.

Project in final stages. Two papers are in preparation.

815. LAMBERT, M.B., Geol. Surv. Can.:
Archean volcanic studies in the Slave-Bear Province, District of Mackenzie, 1973-.

816. LAMBERT, M.B., Geol. Surv. Can.:
Archean felsic volcanic complex near Regan Lake, District of Mackenzie, Northwest Territories, 1974-.

817. LAPOINTE, D., LAURENT, R., Université Laval (Géologie):
Etude pétrologique et gravimétrique du granite des Monts Ste-Cécile et St-Sébastien, Cantons de l'Est, Québec, 1983-85; thèse de maîtrise (Lapointe).

818. LAURENT, R., Université Laval (Géologie):
Géochimie et pétrologie des complexes ophiolitiques des Appalaches Québécoises, 1972-.

Voir:

Mise en place et pétrologie du granite associé au complexe ophiolitique de Thetford Mines, Québec; Can. J. Earth Sci., vol. 21, no. 10, p. 1114-1125, 1984.

819. MacDONALD, M.A., Nova Scotia Dept. Mines and Energy:
South Mountain Batholith project, Nova Scotia, 1984-89.

See:

Variation in granitoid rocks along the 103 highway between Halifax and Chester; Nova Scotia Dept. Mines and Energy, Rept. Activities, 1985.

The first year of the project was spent compiling assessment data and publishing information for the project, investigating variations in typical granitoid rocks from field area and reanalyzing previously collected lake sediment samples.

820. NICHOLLS, J., STOUT, M.Z., Univ. Calgary (Geology and Geophysics):
Petrology of 1) Hauyne-bearing lavas, Canary Islands, and 2) melilite-nephelinite lavas, Canary Islands and Hawaii, 1980-86.

Electron microprobe mineral analyses and whole rock chemical analyses are in progress. Modal analyses has been started and a manuscript on automated electron microprobe modal analyses is in preparation.

821. NICHOLLS, J., STOUT, M.Z., Univ. Calgary (Geology and Geophysics):
Fluid inclusions in welded tuffs, Yellowstone, 1982-86.

Fluid inclusion data collection is in progress.

822. PEARCE, T.H., Queen's Univ. (Geological Sciences):
Laser applications in the earth sciences, 1981-.

See:

Multiple frequency laser interference microscopy: a new technique; The Microscope, vol. 32, no. 2, p. 69-81, 1984.

Optical dispersion and zoning in magmatic plagioclase: laser interference observations; Can. Mineral., vol. 22, p. 383-390, 1984.

Laser interference microscopy, laser fluorescence and holography are being applied to problems in the earth sciences.

823. PEARCE, T.H., CLARK, A.H., GARCIA, E., Queen's Univ. (Geological Sciences):
Comparative petrography of andesites from Peru, 1983-; M.Sc. thesis (Garcia).

Petrographic and chemical study of andesites from the Borroso and Capillune formations, Peru.

824. PEARCE, T.H., CLARK, A.H., ROEDER, P.L., WOLFSON, I., Queen's Univ. (Geological Sciences):
Nomarski observations of ferromagnesian minerals: olivine clinopyroxene, orthopyroxene, 1984.

Nomarski interference contrast observations of etched polished sections.

825. PEARCE, T.H., CORLETT, M.I., Queen's Univ. (Geological Sciences):
FeO and K_2O in plagioclase as a petrogenetic indicator in magma genesis, 1984.

Various models will be tested (such as magma mixing) using probe analyses of plagioclase phenocrysts in volcanic rocks.

826. PEARCE, T.H., NIXON, G.T., Queen's Univ. (Geological Sciences):
Convolute zoning in magmatic plagioclase, 1984.

See:

Interference imaging of plagioclase phenocrysts in orogenic andesites and dacites: laser interference microscope and nomarski observations; Geol. Assoc. Can.-Mineral. Assoc. Can., Program with Abstracts, vol. 10, p. A44, 1985.

Growth history of magmatic plagioclase as revealed by laser interference microscopy and nomarski observations.

827. PEARCE, T.H., SWINAMER, T., Queen's Univ. (Geological Sciences):
Evidence for magma mixing in andesites, 1984; M.Sc. thesis (Swinamer).

A petrographic and chemical study of the magma mixing hypothesis.

828. PELLETIER, L., LAURENT, R., Université Laval (Géologie):
Etude pétrologique des roches volcaniques Siluro-Dévoniennes de la Baie des Chaleurs, Gaspésie, Québec, 1984-86; thèse de maîtrise (Pelletier).

See:

Geochemistry of Silurian-Devonian alkaline basalt suites from the Gaspé Peninsula, Quebec Appalachians; Maritime Sediments and Atlantic Geology, vol. 20, no. 2, p. 67-78, 1984.

Travail de terrain terminé. Etude des échantillons en cours.

829. PICARD, C., LAMOTHE, D., Québec Ministère Énergie et Ressources:
Coupes dans les groupes de Povungnituk et Chukotat, Fosse de l'Ungava, Nouveau-Québec, 1983-86.

Voir:

Chimico-stratigraphie du sillon protérozoique de Cap Smith-Maricourt; Québec Ministère Énergie et Ressources, DV 84-17, p. 67-69, 1984.

Une compréhension des charactéristiques pétrochimiques et de la genèse des laves de Povungnituk et Chukotat. Fait partie d'un projet à long terme qui a débuté en 1983.

830. PILLET, D., BÉLANGER, M., Université de Lyon, Québec Ministère Énergie et Ressources:
Le granite peralcalin du Lac Brisson (Labrador), Québec, 1983-85; thèse de doctorat (Pillet).

Les charactéristiques pétrologiques et la genèse du granite peralcalin du Lac Brisson.

831. POULIOT, G., BERGERON, M., Ecole Polytechnique (Génie minéral):
Contribution à l'étude minéralogique et géochimique des gîtes d'ilménite de la région du Lac Allard, Québec, 1978-85; thèse de doctorat (Bergeron).

L'évolution du complexe anorthositique régional a donné naissance à un liquide ferrodioritique et jotunitique, duquel, par différentiation par gravité et par filtre presse, s'est séparé un liquide hémoilménitique magnésien.

832. ROBINSON, P.T., Dalhousie Univ. (Centre for Marine Geology):
Volcanic evolution of Pacific Northwest, U.S.A., 1975-.

See:

The John Day Formation of Oregon: A record of early Cascade volcanism; Geology, vol. 12, p. 229-232, 1984.

Upper Oligocene ash-flow tuffs of western Nevada; U.S. Geol. Surv. Bull. 1557, 1984.

To understand early Cenozoic volcanic evolution of Blue Mountains and adjacent regions, Oregon.

833. ROBINSON, P.T., MEHEGAN, J., GILLIS, K., SUHR, G., Dalhousie Univ. (Centre for Marine Geology):
Cyprus crustal study project, 1981-87; Ph.D. theses (Mehegan, Gillis, Suhr).

See:

Model for the origin of the Troodos massif, Cyprus, and other Mideast ophiolites; Geology, vol. 12, p. 500-503, 1984.

Are Troodos deposits an East Pacific analog? (International Crustal Research Drilling Group, 1984); Geotimes, vol. 29, p. 12-14, 1984.

To investigate the ophiolite as an analog of oceanic crust.

834. ROGERS, H.D., Geol. Surv. Can.:
Geology of the Meguma Group and associated granitoid plutons in the Shelburne area, Nova Scotia, 1984-.

See:

Geology of the igneous-metamorphic complex of Shelburne and eastern Yarmouth Counties, Nova Scotia; Geol. Surv. Can., Paper 85-1A, p. 773-777, 1985.

835. SCHAU, M., Geol. Surv. Can.:
Volcanic rocks of the Prince Albert belt, Districts of Franklin and Keewatin, 1972-.

836. SCHULZE, D.J., Queen's Univ. (Geological Sciences):
Petrology of upper mantle xenoliths and their host rocks, 1980-.

See:

Cr-poor megacrysts from the Hamilton Branch kimberlite, Elliott County, Kentucky; in Kimberlites II: the Mantle and Crust-Mantle Relationships, J. Kolnprobst, editor, Elsevier, 1984.

To understand the petrologic variation of the upper mantle and its bearing on the magmas derived from it.

837. SEXTON, A.J., Geol. Surv. Can.:
Geology of the Sporting Mountain granitoid complex, Nova Scotia, 1984-.

See:

Petrogenesis and economic geology of the Sporting Mountain pluton, Cape Breton Island, Nova Scotia; Geol. Surv. Can., Paper 85-1A, p. 779-782, 1985.

838. SIMPSON, E.L., BACHINSKI, S.W., Univ. Regina (Geology), Univ. New Brunswick (Geology):
The Shaw's Cove minette: petrology and origin of the ocellar texture, 1984-85.

839. TAYLOR, F.C., Geol. Surv. Can.:
Volcanic rocks of Kaminak Lake region, Northwest Territories, 1984-.

840. TUACH, J., STRONG, D.F., Newfoundland Dept. Mines and Energy, Memorial Univ. (Earth Sciences):
Magmatic/metallogenic processes in the Ackley Granite, Newfoundland, 1983-; Ph.D. thesis (Tuach).

50 percent complete.

841. WHALEN, J.B., Geol. Surv. Can.:
Study of Gaspé granites, Québec, 1984-.

See:

The McGerrigle plutonic complex, Gaspé, Québec: evidence of magma mixing and hybridization; Geol. Surv. Can., Paper 85-1A, p. 795-800, 1985.

METAMORPHIC/ROCHES MÉTAMORPHIQUES

842. FRASER, J.A., Geol. Surv. Can.:
Metamorphism in the Canadian Shield, 1974-.

843. FROESE, E., Geol. Surv. Can.:
A survey of metamorphism in the Canadian Shield, 1978-.

844. FROESE, E., Geol. Surv. Can.:
Metamorphism in the Kisseynew Subprovince, 1980-.

See:

Geology of the Weldon Bay-Fay Lake area, Manitoba; Geol. Surv. Can., Paper 84-1B, p. 355-358, 1984.

845. GAGNON, Y.D., Geol. Surv. Can.:
Structure and petrology of the aureole of the Mount Albert peridotite, Québec, 1984-.

See:

Geology of the Mount Albert region, Gaspé Peninsula, Québec; Geol. Surv. Can., Paper 85-1A, p. 783-788, 1985.

846. GHENT, E.D., FREEMAN, K., MIHALYNUK, M., Univ. Calgary (Geology and Geophysics):
Study of low-grade metamorphism of Mesozoic Volcanic and Plutonic rocks near Terrace, British Columbia, 1983-86; M.Sc. theses (Freeman, Mihalynuk).

The Mesozoic volcanic and plutonic rocks near Terrace, British Columbia have been hydrothermally altered to mineral assemblages containing zeolites, prehnite, pumpellyite and other low-grade minerals. We plan to do a petrological study of these rocks, including electron microprobe analyses and fluid inclusion analyses, in conjunction with the mapping study of G. Woodsworth, Geological Survey of Canada.

847. GHENT, E.D., SEVIGNY, J., Univ. Calgary (Geology and Geophysics):
Pressure-temperature-time paths of metamorphism in the Mica Creek area, British Columbia, 1984-87; Ph.D. thesis (Sevigny).

We plan to study the P-T-t paths of metamorphism by a combination of mineralogical phase equilibria (using thermodynamic modelling and electron microprobe analyses), detailed microtextural studies, fluid inclusion studies and collaborative geochronologic work with R. Parrish, Geological Survey of Canada.

848. GHENT, E.D., STOUT, M.Z., Univ. Calgary (Geology and Geophysics):
Geobarometry, geothermometry and fluid compositions attending metamorphism of pelitic, basic, and calc-silicate rocks in British Columbia and elsewhere, 1967-.

See:

TiO_2 activity in metamorphosed pelitic and basic rocks, principles and applications to metamorphism in southeastern Canadian Cordillera; Contr. Mineral. Petrol., vol. 86, p. 248-255, 1984.

We are presently collaborating on a study with Glenn Woodsworth near Terrace, British Columbia. We have completed the lab work on a study of fluid inclusions from Mica Creek, British Columbia and an ms. is in preparation.

849. GORDON, T.M., Geol. Surv. Can.:
Metamorphism of volcanic rocks, Crowduck Bay, Manitoba, 1980-.

850. GORDON, T.M., Geol. Surv. Can.:
Metamorphic processes in the Kisseynew sedimentary gneiss belt, Manitoba, 1983-.

851. JOLLY, W.T., CUMMING, B., LOREK, E., Brock Univ. (Geological Sciences):
Igneous and metamorphic petrology of Huronian lavas, Southern Province, Ontario, 1984-86; M.Sc. theses (Cumming, Lorek).

852. MAWER, C.K., WHITE, J.C., Univ. New Brunswick (Geology):
Recrystallization of feldspars, 1983-.

Syntectonically recrystallized alkali and plagioclase feldspars from a major deep-crustal shear zone in the Grenville Province of Ontario are shown to have recrystallized primarily by the sub-grain rotation mechanism, with synchronous chemical changes.

853. MAWER, C.K., WILLIAMS, P.F., Univ. New Brunswick (Geology):
Development of gold-quartz veins, Meguma Terrane, Nova Scotia, 1985.

Gold-quartz veins in Meguma Group rocks of Nova Scotia are syntectonic, formed by multiple hydraulic fracturing and mineral precipitation. Their location is controlled directly by structural and metamorphic factors.

854. RAESIDE, R.P., BARR, S.M., HOPE, T.L., Acadia Univ. (Geology):
Metamorphism and deformation of the Shelburne Complex, Nova Scotia, 1983-87; M.Sc. thesis (Hope).

The low pressure Shelburne metamorphic complex was produced by M1, regional Acadian metamorphism, up to andalusite grade. Isograds were deformed by the Acadian Orogeny. M2, associated with the emplacement of a granodiorite pluton, reached sillimanite grade, about 3 MPa pressure. M3, a contact metamorphism around a tonalite pluton, reached cordierite-migmatite grade, and occurred after some 5 km of uplift.

855. SCHAU, M., Geol. Surv. Can.:
Granulites of northern Churchill Province, District of Franklin, 1984-.

See:

High grade metamorphic rocks of northwestern Melville Peninsula, District of Franklin; Geol. Surv. Can., Paper 85-1A, p. 527-532, 1985.

856. WICKS, F.J., HEDJRAN, K., FALLS, R., OZORAY, J., Univ. Toronto (Geology), Royal Ontario Mus. (Mineralogy and Geology):
Mineralogy and geochemistry of the chrysotile asbestos deposits of Ontario, 1982-85.

See:

Mineralogy and geochemistry of the chrysotile asbestos deposits of Ontario: Munro mine and Garrison deposit; Ontario Geol. Surv., Misc. Paper 121, 1984.

Studies on the komatiite-hosted chrysotile asbestos deposits of the Abitibi Greenstone belt have centered on three deposits: the Garrison deposit, the Munro mine and the Reeves mine. Each is characterized by different serpentine assemblages and thus each represents slightly different conditions of serpentinization. Oxygen and hydrogen isotope studies are underway to help define these conditions.

857. WICKS, F.J., OZORAY, J., Royal Ontario Mus. (Mineralogy and Geology):
Mineralogy and geochemistry of the chrysotile asbestos deposits of the eastern townships, Quebec, 1982-85.

Studies on the ophiolite-hosted chrysotile asbestos deposits of the eastern townships have centered on the different serpentine mineral assemblages associated with the chrysotile asbestos veins. Each assemblage represents slightly different conditions of serpentinization. Oxygen and hydrogen isotope studies are underway to help define these conditions.

SEDIMENTARY/ROCHES SÉDIMENTAIRES

858. FUZESY, L.M., Saskatchewan Geol. Surv.:
Petrology of potash ore in the Middle Devonian Prairie Evaporite, Saskatchewan, 1982-85.

859. HISCOTT, R.N., Memorial Univ. (Earth Sciences):
Provenance of Ordovician flysch shed into Taconian foreland basin(s), Appalachians, 1978-.

See:

Ophiolitic source rocks for Taconic-age flysch: trace element evidence; Geol. Soc. Amer. Bull., vol. 95, p. 1261-1267, 1984.

Intend to look next at major element composition, major component petrography, feldspar and pyroxene compositions.

860. VON BITTER, P.H., ELEY, B.E., Royal Ontario Mus. (Invert. Palaeontology):
The stratigraphic, petrographic and palynologic characteristics of chert as utilized by Ontario's pre-historic peoples, 1982-85.

GENERAL/GÉNÉRALITÉS

861. KYSTER, K., STAUFFER, M.R., COLEMAN, L.C., Univ. Saskatchewan (Geological Sciences):
Petrology and geochemistry of the central part of the Wathaman batholith, 1983-87.

To determine the origin of the magma, the effects of metamorphism in and around the batholith, and (if possible) the emplacement process.

862. STAUFFER, M.R., COLEMAN, L.C., ARNDT, N.T., Univ. Saskatchewan (Geological Sciences):
Study of the Amisk volcanics near Flin Flon, Manitoba, 1980-87.

To determine the origin of the volcanic magma, the volcanic processes by which the Amisk was deposited, and the geotectonic setting.

863. TURNOCK, A.C., Univ. Manitoba (Earth Sciences):
Aluminous ironstones in the Bird River greenstone belt, 1982-85.

Mapping and chemical analysis of rocks produced by the mixing of explosive felsic underwater volcanic eruption, and mafic mud.

864. WILLIAMS, H.R., Brock Univ. (Geological Sciences):
Studies within the BRITT DOMAIN, Grenville Province, Ontario, 1982-.

QUATERNARY GEOLOGY/GÉOLOGIE DU QUATERNAIRE

865. ANDERSON, T.W., Geol. Surv. Can.:
Quaternary paleoecology, Great Lakes, 1978-.

866. ANDRIASHEK, L.D., Alberta Research Council (Geol. Surv.):
Quaternary stratigraphy of the Edmonton map area, NTS 83H, Alberta, 1978-85.

Lithostratigraphic unit isopachs and structure contour maps are being prepared for the Quaternary sequence. Water-well data was assimilated into the data compilation thereby increasing data intensity.

867. ANDRIASHEK, L.D., FENTON, M.M., Alberta Research Council (Geol. Surv.):
Surficial geology and Quaternary stratigraphy of the Sand River area, NTS 73L, Alberta, 1976-85.

Final report scheduled to be published 1985.

868. BAKER, C.L., STEELE, K.G., FORTESCUE, J.A.C., Ontario Geol. Surv.:
Reconnaissance till sampling program in the Black River-Matheson (BRIM) area, Ontario, 1984-87.

See:

Location of gold grains in sonic drill core samples from the Matheson area, Cochrane District; Ontario Geol. Surv., Map P2736, Geophysical/Geochemical Series-Preliminary Map scale 1:100 000, Geology, 1984.

Reconnaissance till sampling program in the Matheson area, District of Cochrane; Ontario Geol. Surv., Misc. Paper 119, p. 295-298, 1984.

A reconnaissance till sampling project was carried out in cooperation with the Engineering and Terrain Geology Section and formed part of the Black River-Matheson (BRIM) Program. The project utilized backhoe sampling techniques to collect till samples for Quaternary and geochemical studies. This work preceeded a deep overburden drilling program which was conducted in the fall of 1984.

869. BARNETT, P.J., Ontario Geol. Surv.:
Quaternary geology of Renfrew County, Ontario, 1977-86.

870. BARNETT, P.J., Ontario Geol. Surv., Univ. Waterloo (Earth Sciences):
Quaternary geology of the Long Point-Port Burwell area, Ontario, 1982-85; Ph.D. thesis.

871. BATTERSON, M., Newfoundland Dept. Mines and Energy:
Quaternary mapping in granitoid terrains, Labrador: 1. Strange Lake, 1984-89.

See:

Quaternary mapping and drift exploration in the Strange Lake area, Labrador; Newfoundland Dept. Mines and Energy, Report 85-1, p. 4-10, 1985.

An aid to mineral exploration activities in Labrador by characterizing glacial dispersal patterns from mineralization of known extent and, subsequently, applying these techniques to areas where mineralization sources are, as yet, undiscovered.

872. BLACKWELL, B., Univ. Alberta (Geology):
Amino acid dating of bones and teeth from Charente, France; Ph.D. thesis.

873. BLAKE, W., Jr., Geol. Surv. Can.:
Quaternary geochronology, Arctic Islands, 1975-.

874. BLASCO, S.M., Geol. Surv. Can.:
Surficial geology and geomorphology, Mackenzie Bay-continental shelf, 1970-.

See:

DMAPS: a new experimental digital marine reflection seismic acquisition and processing system; Geol. Surv. Can., Paper 85-1A, p. 523-526, 1985.

875. BOBROWSKY, P.T., Univ. Alberta (Geology):
Quaternary geologic history of the north-central Rocky Mountain trench, British Columbia, 1983-87; Ph.D. thesis.

The determination of the nature, extent and association of glacial, interglacial and Holocene surficial and subsurface deposits in the Rocky Mountain Trench north of Williston Lake and south of Fort Ware. Secondary objectives include paleoenvironmental studies and detailed sedimentology.

876. BRAGG, D., Newfoundland Dept. Mines and Energy:
Reconnaissance aggregate inventory, Newfoundland, 1984-85.

See:

Aggregate resources inventory; Newfoundland Dept. Mines and Energy, Report 85-1, p. 199-200, 1985.

Project will continue computerization of aggregate deposit data from field projects. Also, a preliminary assessment will be made of bedrock of Avalon Peninsula as a source of aggregate. This will include sampling bedrock for geotechnical properties.

877. CATTO, N.R., HUGHES, O.L., RUTTER, N.W., SCHWEGER, C.E., Univ. Alberta (Geology, Anthropology), Geol. Surv. Can.:
Quaternary geology of the Peel Plateau and eastern Richardson Mountains, Yukon, Northwest Territories, 1981-86; Ph.D. thesis (Catto).

Three Quaternary glacial events (minimum) have affected the region. Drainage connections to and from the Bell and Old Crow Basins to the west existed at several periods. A wide variety of fluvial, lacustrine, aeolian, glacial, paludal, and colluvial sediments have been recognized and interpreted. Palaeoenvironmental data has been reported to the Geological Survey of Canada, and is currently being prepared for publication.

878. CHAUVIN, L., Québec Ministère Énergie et Ressources:
Géologie du Quaternaire de la région de Murdochville-Gaspé, Québec, 1982-85.

Voir:

Géologie au Quaternaire de la région de Ruisseau-Lesseps-Murdochville; Québec Ministère Énergie et Ressources, DP 83-26, 1984.

Etablir l'histoire glaciaire et les modalites de la dispersion glaciaire de la region. En vérifier l'influence sur la géochimie des sédiments de ruisseau.

879. CLAGUE, J.J., Geol. Surv. Can.:
Quaternary geology, upper Fraser River Basin, British Columbia, 1981-.

880. DREDGE, L.A., Geol. Surv. Can.:
Quaternary geology, terrain inventory, northeastern Manitoba, 1975-.

See:

Glacial and interglacial deposits in the Hudson Bay Lowlands: a summary of sites in Manitoba; Geol. Surv. Can., Paper 85-1A, p. 247-257, 1985.

881. DREDGE, L.A., Geol. Surv. Can.:
Quaternary geology-terrain inventory, northwestern Manitoba, 1980-.

882. DREIMANIS, A., BARNETT, P.J., Ontario Geol. Surv., Univ. Western Ontario (Geology):
Quaternary geology of the Port Stanley area, southern Ontario, 1984-85.

See:

Ontario Geol. Surv., Prel. Map 2827, 1985.

883. DUBOIS, J-M.M., PARENT, M., BAIL, P., Univ. Sherbrooke (Géographie):
Le Quaternaire des Cantons de l'Est, Québec, 1980-87.

Voir:

Les plaines d'épandage proglaciaires: un exemple synthèse dans la vallée de la rivière Missisquoi-Nord au Québec (Canada); Photo Interprétation, no. 83-3, p. 12.1-12.19, 1985.

La déglaciation, les épisodes glaciolacustres et l'invasion marine sur la bordure appalachienne, région d'Asbestos-Valcourt, Québec; 5è Congrès de l'AQQUA, Sherbrooke, programme et résumés, p. 41-42, 1984.

Quaternary stratigraphy and ice-flow patterns in the Asbestos-Valcourt region, Southern Québec; Geol. Assoc. Can.-Mineral. Assoc. Can., Program and Abstracts, vol. 9, p. 95, 1984.

Discussion de "Notes on the Deglaciation of Southeastern Quebec"; Comm. Géologique du Can., Paper 84-1B, p. 391-394, 1984.

Notes on the deglaciation of southeastern Québec: discussion; ibid., p. 395-397, 1984.

Le Quaternaire du Québec méridional: aspects stratigraphiques et géomorphologiques; Livret-guide d'excursion, 5è Congrès AQQUA, Sherbrooke, 1984.

Mise au point sur le Quaternaire des Cantons de l'Est et esquisse paléogéographique.

884. DYKE, A.S., Geol. Surv. Can.:
Quaternary geology-terrain inventory, Boothia Peninsula, northeast Keewatin, and Somerset and Prince of Wales Islands, District of Franklin, 1975-.

885. DYKE, A.S., Geol. Surv. Can.:
Quaternary geology-terrain inventory, Frances Lake, Yukon Territory, 1981-.

886. DYKE, A.S., Geol. Surv. Can.:
Quaternary geology-terrain inventory, Prince of Wales Island, King William Island and adjacent mainland Keewatin, 1981-.

887. DYKE, A.S., Geol. Surv. Can.:
Quaternary history and surficial materials of northwestern Baffin Island, District of Franklin, 1983-.

888. EDLUND, S.A., Geol. Surv. Can.:
Surficial geology-terrain inventory, Bathurst-Cornwallis and eastern Melville Islands, District of Franklin, 1974-.

889. FARVOLDEN, R.N., GREENHOUSE, J., KARROW, P.F., ROSS, L., Univ. Waterloo (Earth Sciences):
Geophysics and stratigraphy, Kitchener-Waterloo area, Ontario, 1981-; M.Sc. thesis (Ross).

890. FINAMORE, P., SADO, E.V., Ontario Geol. Surv.:
Opapimiskan Lake project, Ontario, 1984-87.

See:

Opapimiskan Lake project: Precambrian geology, Quaternary geology, and mineral deposits of the North Caribou Lake area, District of Kenora, Patricia Portion; Ontario Geol. Surv., Misc. Paper 119, p. 258-273, 1984.

Quaternary geological mapping; investigate glacial dispersion of local bedrock lithologies in aid of mineral exploration.

891. FINCK, P.W., Nova Scotia Dept. Mines and Energy:
South Mountain Batholith project, Nova Scotia, 1984-89.

July to May 1984/85 is a compilation and planning period. Detailed airphotograph interpretation of the 1985/86 field area was completed. Aim is to map the Quaternary Geology at 1:50 000 scale to aid in the mineral assessment and development of the South Mountain Batholith.

892. FLINT, J.J., Brock Univ. (Geological Sciences):
Buried channels in the Niagara Peninsula, 1980-85.

893. FRITZ, P., EDWARDS, T., Univ. Waterloo (Earth Sciences):
^{18}O, ^{2}H, ^{13}C in tree-rings, 1983-86; Ph.D. thesis (Edwards).

The stable isotope composition of cellulose from tree-rings reflects paleoclimatic and/or paleohydrologic conditions. Modern and fossil material is compared.

894. FULTON, R.J., Geol. Surv. Can.:
Quaternary geology of the Canadian Cordillera, 1975-.

See:

Quaternary glaciation, Canadian Cordillera; Geol. Surv. Can., Paper 84-10, p. 39-47, 1984.

Summary of Quaternary stratigraphy and history, Western Canada; ibid., p. 69-83, 1984.

895. FULTON, R.J., Geol. Surv. Can.:
Surficial geology, Cobden area (Quebec part), 1980-.

896. FYFE, W.S., KERRICH, R., HICOCK, S.R., Univ. Western Ontario (Geology):
Lithoprobe Phase I: volatile travel along Quaternary faults, Vancouver Island, British Columbia, 1984-.

A study of exotic precipitates on Quaternary faults on seismically-active Vancouver Island to see if and what mantle and upper crust-derived materials are ascending these structures. Four promising sites were sampled and are now being analyzed.

897. GADD, N.R., Geol. Surv. Can.:
Correlation of Quaternary geology; Great Lakes-St. Lawrence Valley region, 1978-.

See:

Notes on the deglaciation of southern Québec: reply; Geol. Surv. Can., Paper 84-1B, p. 329, 400, 1984.

898. GEDDES, R.S., Ontario Geol. Surv.:
Quaternary mapping and special projects, Hemlo area, Ontario, 1983-85.

Two 1:50 000 Quaternary geology maps published Spring 1985. NTS 42C/12, 42C/6. Further investigation on nature, regional significance and applications of tills in the area.

899. GEURTS, M-A., DEWEZ, V., Université Ottawa (Géographie):
Evolution Quaternaire de la Ruby Range (Yukon), 1980-87; thèse de doctorat (Dewez).

La proposition de sujet de thèse sera présentée en 1985. Les levés de terrain sont terminés pour cette thèse.

900. GORMAN, W.A., LLOYD, C.J., Queen's Univ. (Geological Sciences):
A late glacial advance in the Belleville area, Ontario, 1984-85.

901. GRANT, D.R., Geol. Surv. Can.:
Surficial geology, St. Anthony-Blanc Sablon map-areas, Newfoundland, 1969-.

902. GRANT, D.R., Geol. Surv. Can.:
Surficial geology, Cape Breton Island, Nova Scotia, 1970-.

See:

A stratigraphic framework for the Quaternary history of the Atlantic Provinces, Canada; Geol. Surv. Can., Paper 84-10, p. 173-191, 1984.

903. GRANT, D.R., Geol. Surv. Can.:
Surficial geology of Newfoundland, 1974-.

904. GRANT, D.R., Geol. Surv. Can.:
Quaternary stratigraphy Yarmouth region, Nova Scotia, 1979-.

905. HICOCK, S.R., Univ. Western Ontario (Geology):
Quaternary stratigraphy and history of coastal southwestern British Columbia, 1974-.

See:

Southwest British Columbia: Pleistocene chronology and correlation; Quaternary Chronologies Symp. vol., GeoAbstracts Ltd., Norwich, 1985.

Vachon Drift: definition of the formation in the Georgia Depression, British Columbia; Can. J. Earth Sci., vol. 22, no. 3, 1985.

Involves lithostratigraphic, glacial geologic, pollen, beetle, oxygen isotope, amino acid, radiocarbon, and paleontologic analysis of Quaternary sediments, resulting in at least ten major joint research papers so far. Climatic reconstructions have even been attempted for parts of the record.

906. HICOCK, S.R., Univ. Western Ontario (Geology):
Anomalous carbonate till near Marathon, Ontario: origin and application, 1985-.

A study of the genesis and implications of an unusual till in the Hemlo area in light of drift prospecting strategies, lake alkalinity patterns, and acid rain buffering potential in northwestern Ontario.

907. HICOCK, S.R., PARKIN, G.W., Univ. Western Ontario (Geology):
Glacial geology applied to mineral exploration in mountainous terrain, 1984-; M.Sc. thesis (Parkin).

A study of glacial geology in Buttle Valley, Vancouver Island, to determine distance, direction, and amount of glacial dispersion of Westmin ore at its head. This test valley will serve as a model for Pleistocene alpine glaciation in southwestern British Columbia.

908. HODGSON, D.A., Geol. Surv. Can.:
Surficial geology and geomorphology of central Ellesmere Island, District of Franklin, 1972-.

See:

The last glaciation of west-central Ellesmere Island, Arctic Archipelago, Canada; Can. J. Earth Sci., vol. 22, no. 3, p. 347-368, 1985.

909. HODGSON, D.A., Geol. Surv. Can.:
Surficial geology, geomorphology and terrain inventory of the Ringnes and adjacent islands, District of Franklin, 1976.

910. HORA, Z.D., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Sand and gravel – mainland British Columbia, 1980-86.

Evaluation of aggregate potential in populated area and transportation corridors. Analysis of the supply-demand situation. Fieldwork completed.

911. HUGHES, O.L., Geol. Surv. Can.:
Quaternary geology, Aishikik Lake, Yukon, 1965-.

912. HUGHES, O.L., Geol. Surv. Can.:
Quaternary stratigraphy of Old Crow Basin and Porcupine River valleys, Yukon, 1968-.

913. HUGHES, O.L., Geol. Surv. Can.:
Quaternary geology, Mayo-McQuesten, Yukon Territory, 1979-.

See:

Soil development on Quaternary deposits of various ages in the central Yukon Territory; Geol. Surv. Can., Paper 85-1A, p. 229-238, 1985.

914. JACKSON, L.E., Jr., Geol. Surv. Can.:
Quaternary geology, terrain inventory, Kananaskis Lakes, Alberta, 1974-.

915. JACKSON, L.E., Jr., Geol. Surv. Can.:
Quaternary geology and terrain inventory, Nahanni-Sheldon Lake-Finlayson Lake, Yukon and District of Mackenzie, 1980-.

916. KARROW, P.F., Ontario Geol. Surv.:
Quaternary geology of Brampton area, southern Ontario, 1984.

Mapping 1:50 000 in progress.

917. KARROW, P.F., BAJC, A., Univ. Waterloo (Earth Sciences):
Glacial and glaciolacustrine history, northern Lake Superior, 1983-; M.Sc. thesis (Bajc).

About 100 fossil sites are yielding abundant molluscs and plant remains. Radiocarbon dating and fossil analysis will shed light on lake history.

918. KARROW, P.F., BELKNAP, D.F., WEHMILLER, J., Univ. Waterloo (Earth Sciences), Univ. Maine, Univ. Delaware:
Aminochronology of marine terraces, Tampa, Florida, 1984.

919. KARROW, P.F., HANN, B.J., Univ. Waterloo (Earth Sciences), Univ. Manitoba (Earth Sciences):
Paleontology of the Toronto interglacial, 1960-.

See:

Pleistocene paleoecology of the Don and Scarborough Formations, Toronto, Canada, based on cladoceran microfossils at the Don Valley Brickyard; Boreas, vol. 13, 1984.

A long-term study to document as fully as possible the rich fossil record of the Toronto interglacial, in particular the Don Fm. Many unreported species of plants, molluscs, and microvertebrates are under study and C-O isotopes are being analyzed on molluscs.

920. KARROW, P.F., PAIR, D., Univ. Waterloo (Earth Sciences):
Deglaciation of upper St. Lawrence valley, 1978-; M.Sc. thesis (Pair).

See:

Late Pleistocene water bodies in the St. Lawrence Valley, New York, and regional correlations; Geol. Soc. Amer. Bull., vol. 95, p. 805-813, 1984.

Work by Peter Clark inferred Champlain Sea extension into Lake Ontario basin based on study of Malone area. Mapping near Ogdensburg is extending the marine limit westward to clarify water level history near Ontario basin.

921. KARROW, P.F., WARNER, B.G., KAZMARSKA, I., Univ. Waterloo (Earth Sciences):
Interstadial environments, southern Ontario, 1980-.

See:

A subsurface Middle Wisconsinan interstadial site at Waterloo, Ontario; Boreas, vol. 13, p. 67-85, 1984.

We are attempting to improve dating and learn about interstadial environments through study of fossils. Clarksburg and Innerkip are among sites under study.

922. KASZYCKI, C.A., Geol. Surv. Can.:
Glacial erosion of the Canadian Shield, 1978-.

923. KIRBY, F., Newfoundland Dept. Mines and Energy:
Detailed aggregate resource assessments – Insular Newfoundland, 1982-.

See:

Detailed aggregate resource project, Insular Newfoundland; Newfoundland Dept. Mines and Energy, Report 85-1, p. 201-203, 1985.

To locate, map and sample high quality aggregates in areas where conflicting land uses threaten to sterilize these valuable nonrenewable resources. To date, work has been concentrated in 30 municipal planning areas and in a number of project development areas.

924. KLASSEN, R.A., Geol. Surv. Can.:
Surficial geology and Quaternary stratigraphy of north Baffin-Bylot Islands, District of Franklin, 1978-.

925. KLASSEN, R.A., Geol. Surv. Can.:
Drift prospecting, east-central Labrador, 1982-.

926. KLASSEN, R.A., Geol. Surv. Can.:
Quaternary geology, southwestern Saskatchewan, 1983-.

927. LEVSON, V.M., RUTTER, N.W., Univ. Alberta (Geology):
Quaternary geology of Jasper National Park, Alberta, 1982-85; M.Sc. thesis (Levson).

928. LIVERMAN, D.G.E., Univ. Alberta (Geology):
Surficial geology and Quaternary history of the Grande Prairie 1:250 000 map sheet (83 M), Alberta, 1984-88; Ph.D. thesis.

Air photo interpretation commenced in 1984, in preparation for a 3 month field season in 1985.

929. MIHYCHUK, M.A., Newfoundland Dept. Mines and Energy:
Drift prospecting in the Victoria prospect and Tally Pond areas, central Newfoundland, 1984-85.

See:

Drift prospecting in the Victoria and Tally Pond areas, central Newfoundland; Newfoundland Dept. Mines and Energy, Report 85-1, p. 99-104, 1985.

Detailed investigation of glacial sediments and associated features for the purpose of defining dispersal fans in areas of sulfide mineralization, where local icecaps migrated during deglaciation.

930. MUDIE, P.J., Geol. Surv. Can.:
Quantitative Quaternary paleoecology, Eastern Canada, 1982-.

931. PELLETIER, B.R., Geol. Surv. Can.:
Quaternary paleo-sealevel map of Canada, 1978-.

932. RAMPTON, V.N., GAUTHIER, R.C., THIBAULT, J., SEAMAN, A.A., Geol. Surv. Can., New Brunswick Dept. Nat. Res. (Geol. Surv. Br.):
Quaternary geology of New Brunswick, 1982-84.

933. RICHARD, S.H., Geol. Surv. Can.:
Surficial geology, Tawatinaw area, Alberta, 1968-.

934. RICHARD, S.H., Geol. Surv. Can.:
Surficial geology, Ottawa Valley lowlands, Ontario-Québec, 1974-.

935. RICHARD, T.A., Ontario Geol. Surv.:
Quaternary mapping of the Porquis Junction-Watabeag River map areas, Ontario, 1984-85.

Mapping completed 1984; preliminary map to be published 1985; final report to follow.

936. RICKETTS, M.J., HAYES, J.P., Newfoundland Dept. Mines and Energy:
Aggregate resource inventory along possible transportation routes from Strange Lake, Labrador to the Atlantic Coast, 1984-85.

See:

Newfoundland Dept. Mines and Energy, Report 85-1, p. 11-15, 1985.

The study was conducted as an aid to the possible construction of a road to transport ore to the coast from the deposit site on the Labrador-Quebec border. Map and sieve analysis have been completed. An Open File Report will be released in late 1985.

937. RODKIN, O., Univ. Alberta (Geology):
Reconstruction of the Cordilleran ice sheet through the use of glacial flow models, geomorphology and geochronology, 1984-; Ph.D. thesis.

A preliminary reconstruction of the ice sheet profiles in the Southern Yukon Mountains calculated from literature review, open-file maps, and air-photos has been made. Commencing in the summer of 1985 field work will be undertaken to collect information on the ice margins and trimlines in several localities. This data will be then used to construct ice sheet models from which various palaeo-climatic inferences can be made.

938. ROGERSON, R.J., EVANS, D.J.A., Memorial Univ. (Earth Sciences, Geography):
Quaternary history of the Selamiut Range/Nachvak Fiord area of northern Labrador, 1983; M.Sc. thesis (Evans).

Four glacial stages recognized in the Selamiut; from soils dating, the Nachvak glaciation peaked early in the Late Wisconsin (c. 20 Ka BP) and was the last time inland ice fed through the fiord. Extensive nunataks existed then and contain higher marine limits near the mouth of the fiord.

939. ROGERSON, R.J., JOSENHANS, H.W., Memorial Univ. (Earth Sciences), Geol. Surv. Can.:
Fiord sediments and glacial geology of Nachvak Fiord, Northern Labrador, 1984-.

A 3.5 kHz survey of fiord sediments in Nachvak Fiord reveals several tills and a thick postglacial sequence. Plans are being made to core two sites in 1985.

940. RUTTER, N.W., Univ. Alberta (Geology):
Quaternary history of parts of Alberta, British Columbia, Yukon, 1976-.

941. RUTTER, N.W., Univ. Alberta (Geology):
Development of amino acid racemization dating techniques, 1976-.

942. ST-ONGE, D.A., Geol. Surv. Can.:
Surficial geology, north-central District of Mackenzie, 1983-.

See:

Northeast extension of glacial Lake McConnell in the Dease River basin, District of Mackenzie; Geol. Surv. Can., Paper 85-1A, p. 181-186, 1985.

943. ST-ONGE, D.A., Geol. Surv. Can.:
Surficial geology inventory – area south of Dolphin and Union Strait, District of Mackenzie, 1984-.

944. SCHREINER, B.T., CAMPBELL, J.C., Saskatchewan Research Council (Resources):
Quaternary geology of Saskatchewan, 1974-.

Work is continuing in central Saskatchewan which involves fourteen 1:250 000 NTS map areas. All areas have been compiled, except for three areas in west-central Saskatchewan which should be completed in 1985-86. All information at the 1:250 000 scale will then be compiled to 1:1 000 000 for publication in 1986. Investigations of glacial and interglacial deposits are being carried out to provide information on materials and stratigraphy. This information is applied to resource studies such as groundwater, aggregates and geotechnical work. Research on Quaternary sediments and processes are continuing.

945. SCHREINER, B.T., MAATHUIS, H., Saskatchewan Research Council (Resources):
Geology and groundwater resources of southern Saskatchewan, 1983-.

The project consists of mapping and evaluating bedrock, buried valley, interfill, and surficial aquifers. A series of maps will delineate the areal extent and thickness of the aquifers and overlying deposits. Cross-sections will illustrate the stratigraphic position and interrelationship of the aquifers. Water levels, quality, flow directions and other hydrologic parameters will be shown. A preliminary evaluation of groundwater quantity and quality will be included. This work is based on existing information supplemented by field investigations. The project is focussing on the groundwater resources in the North Battleford (73C), Melville (62L, K) and Saskatoon areas (73B) and will be continued in the Melfort (73A), Kindersly (72N) and other areas.

946. SHARPE, D.R., Geol. Surv. Can.:
Quaternary geology, southwestern Victoria Island, District of Franklin, 1983-.

See:

The stratified nature of deposits in streamlined glacial landforms on southern Victoria Island, District of Franklin; Geol. Surv. Can., Paper 85-1A, p. 365-371, 1985.

947. SHETSEN, I., Alberta Research Council (Geol. Surv.):
Quaternary geology, southern Alberta, 1980-86.

See:

Application of till pebble lithology to the differentiation of glacial lobes in southern Alberta; Can. J. Earth Sci., vol. 21, no. 8, p. 920-933, 1984.

948. SHILTS, W.W., Geol. Surv. Can.:
Properties and provenance of till, 1969-.

See:

Esker sedimentation models, Deep Rose Lake map area, District of Keewatin; Geol. Surv. Can., Paper 84-1B, p. 217-222, 1984.

949. SHILTS, W.W., Geol. Surv. Can.:
Quaternary geology inventory – southern Keewatin, 1973-.

950. SHILTS, W.W., Geol. Surv. Can.:
Quaternary stratigraphy, Northern Ontario Lowlands, 1983-.

See:

Quaternary events – Hudson Bay Lowland and southern District of Keewatin; Geol. Surv. Can., Paper 84-10, p. 117-126, 1984.

951. STALKER, A. MacS., Geol. Surv. Can.:
Quaternary of southern Alberta, 1965-.

952. STEA, R.R., Nova Scotia Dept. Mines and Energy:
Quaternary mapping and till geochemistry, northern Nova Scotia, 1982-.

953. TELLER, J.T., MAHNIC, P., Univ. Manitoba (Earth Sciences):
History of the Nipigon Basin link between east and west, 1983-.

954. TERASMAE, J., LEYLAND, J.G., MIHYCHUK, M., Brock Univ. (Geological Sciences):
Chronology and correlation of ice retreat and glacial lake phases in the northern Lake Ontario region; M.Sc. theses (Leyland, Mihychuk).

This project is based on mapping of surficial geology, palynological studies, and radiocarbon dating for the purpose of an improved understanding of Late Wisconsin geological history of the eastern Great Lakes region.

955. TERASMAE, J., WINN, C.E., McATEE, C., Brock Univ. (Geological Sciences):
Holocene palynostratigraphic zones in southern Ontario; M.Sc. theses (Winn, McAtee).

To establish a standard sequence of Holocene palynostratigraphic subdivisions for southern Ontario, based on about 50 pollen diagrams and approximately 100 radiocarbon dates. Secondary objectives include history of vegetation and climate change during the Holocene.

956. VANDERVEER, D.G., Newfoundland Dept. Mines and Energy:
Detailed Quaternary mapping as an aid to mineral exploration, 1980-.

See:

Detailed Quaternary mapping – Moran Heights, Labrador and Quaternary mapping, Gander-Gambo area, Newfoundland; Newfoundland Dept. Mines and Energy, Report 85-1, p. 55-58, 1985.

To provide information on landform distribution and glacial transport in drift covered areas in order to assist the mineral exploration industry in locating bedrock sources of known mineralized float or geochemical anomalies.

957. VEILLETTE, J.J., Geol. Surv. Can.:
Géologie du Quaternaire, région de l'Outaouais supérieur Québec, 1977-.

958. VEILLETTE, J.J., Geol. Surv. Can.:
Géologie du Quaternaire et géochimie des tills de la région Mont-Joli/La Rédemption, Québec, 1984-.

959. VINCENT, J-S., Geol. Surv. Can.:
Surficial geology inventory, Banks Island, District of Franklin, 1974-.

See:

Quaternary stratigraphy of the western Canadian Arctic Archipelago; Geol. Surv. Can., Paper 84-10, p. 87-100, 1984.

960. VINCENT, J-S., Geol. Surv. Can.:
Surficial geology-terrain inventory, western Victoria Island, District of Franklin, 1981-.

961. VINCENT, J-S., Geol. Surv. Can.:
Quaternary stratigraphy of the Beaufort coast, Yukon and District of Mackenzie, 1983-.

962. VINCENT, J-S., Geol. Surv. Can.:
Surficial geology inventory – area of Anderson River map area, District of Mackenzie, 1984-.

963. WATERS, P., Univ. Alberta (Geology):
Early Quaternary stratigraphy and paleoecology of the Bluefish Basin, Old Crow, Yukon, 1979-86; Ph.D. thesis.

964. WATTS, S.H., Sir Sandford Fleming College (Geology):
Bedrock weathering processes and products beyond the Laurentide Ice Margin in the northern Yukon, 1984-85.

See:

Highly weathered bedrock terrain – an enigma in Arctic Canada; Geos, vol. 13, no. 3, 1984.

To continue to examine various processes responsible for the production of interesting assemblages of highly weathered bedrock features developed in granites exposed beyond the Laurentide ice margin in the northern Yukon Territory. Research would extend current work in the Old Crow Range to another field area in the vicinity of Mt. Sedgwick in the British Mountains. Emphasis would again be placed on documenting the range of forms present. Interrelationships of lithologic, climatic and topographic factors in the development and preservation of these forms would be further evaluated.

965. WESTGATE, J.A., WALTER, R.C., FROGGATT, F., GORTON, M.P., Univ. Toronto (Geology):
Quaternary tephrochronology of Alaska and the Yukon Territory, 1975-.

Application of stratigraphic, geochemical, palaeomagnetic, and fission-track dating methods to tephra in Quaternary deposits of Alaska and Yukon.

966. WRIGHT, W., Nova Scotia Dept. Mines and Energy:
Aggregate resources of southwestern Nova Scotia, 1982-85.

967. AMOS, C.L., Geol. Surv. Can.:
Landsat calibration for suspended sediment concentration in marine coastal environments, 1978-.

968. BÉLANGER, J.R., Geol. Surv. Can.:
Remote sensing applied to Quaternary geology and mineral tracing, 1978-.

969. BONN, F., DUBOIS, J-M.M., GWYN, Q.H.J., Univ. Sherbrooke (Géographie):
Développement de méthodologies d'interprétation quantitative des images de télédétection en géomorphologie continentale et littorale, 1980-85.

Voir:

Intégration du canal panchromatique de SPOT à son mode multispectral pour le rehaussement d'image; 52è Congrès de l'ACFAS, Québec, 1984.

Integration of a digital terrain model and a thematic mapper simulation over a moderate topography area; 18è Symp. Internat. sur l'observation de la terre, Paris, 1984.

Corrélations entre les documents satellites, levés radar, thermographiques et multispectraux pour la géomorphologie du sud du Québec; C.R. 8è Symp. Can. télé., Montréal, p. 717-723, 1984.

970. BONN, F., GWYN, Q.H.J., Univ. Sherbrooke (Géographie):
Télédétection par radar en sciences de la terre, 1982-86.

Voir:

Corrections radiométriques des données SAR aéroportées; Centre canadien de télédétection, 1984.

Seasat – A detection of geomorphologic phenomena in the Saint-Lawrence Valley, Québec; Proc. 17th Internat. Symp. Rem. Sens. Env., p. 1179-1186, 1984.

Optimisation de l'utilisation des micro-ondes par l'élaboration de clefs d'interprétation.

971. BONN, F., GWYN, Q.H.J., DUBOIS, J-M.M., Univ. Sherbrooke (Géographie):
Télédétection des dépôts meubles: île d'Anticosti et Cantons de l'Est, 1982-85.

Optimisation des images aéroportées et satellites pour les dépôts meubles et la géomorphologie.

972. DUBOIS, J-M.M., BONN, F., Univ. Sherbrooke (Géographie):
Télédétection des terres humides, 1984-87.

Optimisation de l'interprétation analogique et numérique d'images de télédétection des zones de tourbières et autres zones humides.

973. DUBOIS, J-M.M., EL-SABH, M., BONN, F., Univ. Sherbrooke (Géographie):
Étude de la dynamique de l'estuaire et du golfe du Saint-Laurent par télédétection, 1982-85.

Voir:

Étude thermique des eaux de l'estuaire du St-Laurent à l'aide du satellite H.C.M.M.: résultats préliminaires; C.R. 8è Symp. Can. Télé., Montréal, p. 321-330, 1984.

Détermination de la dynamique multitemporelle des courants marins par imagerie H.C.M.M.

974. DUBOIS, J-M.M., OMMANNEY, S., Univ. Sherbrooke (Géographie):
Télédétection de l'évolution des glaciers tempérés actuels, 1983-85.

Voir:

Évolution des glaciers par photo-interprétation au parc National des Glaciers, British Columbia; 5è Congrès de l'AQQUA, Sherbrooke, programme et résumés, p. 23-24, 1984.

Évolution des glaciers actuels par téléinterprétation.

975. ROYER, A., Univ. Sherbrooke (Géographie):
Corrections atmosphériques des images satellites de télédétection, 1983-85.

Voir:

Corrections atmosphériques des images de télédétection des programmes ATMFIT, SOLATM et PARATM; Dépt. géographie, Univ. Sherbrooke, 1984.

976. SLANEY, V.R., Geol. Surv. Can.:
Remote sensing applications, 1981-.

977. SPRINGER, J.S., Ontario Geol. Surv.:
Applications of remote sensing to mineral deposits exploration in the Grenville Province of Ontario, 1983-87.

978. TANGUAY, M.G., GAGNIER, B-M., Ecole Polytechnique (Génie minéral):
Applications des images Landsat et des images SAR en génie et en géologie, 1982-86; thèse de maîtrise (Gagnier).

Voir:

Étude d'images Landsat, secteur de Chapais, Abitibi; Min. Energie et Ressources Québec, rapport MB84-14, p. 20, cartes 3, 1984.

Développer les méthodes d'utilisation et d'application des images Landsat et de radar SAR aux divers domaines en génie et en géologie.

979. TANGUAY, M.G., SEA, B., Ecole Polytechnique (Génie minéral):
Analyse des linéaments d'Anticosti, Québec, 1983-86.

Déterminer les structures favorables à la recherche des hydrocarbures par analyse des linéaments sur photos aériennes et corrélation avec les images Landsat.

SEDIMENTOLOGY/SÉDIMENTOLOGIE

ANCIENT SEDIMENTS/ SÉDIMENTS ANCIENS

980. BANERJEE, I., Geol. Surv. Can.:
Stratigraphy and sedimentology of the Mannville Group, southern Alberta, 1982-.

981. CAMERON, B.W., JONG, W., Acadia Univ. (Geology):
Subsurface stratigraphy, petrology and paleoenvironments of the Triassic Wolfville and Blomidon formations (Fundy Basin) of Nova Scotia, 1984-87.

About 25 drillcores, with about half penetrating the Wolfville Formation, are being studied. A number of the longer ones as well as some others distributed all along the Annapolis Valley will be logged in detail and studied petrographically. Paleoenvironmental and diagenetic studies are planned. Playa Lake and braided stream deposits dominate.

982. CHANDLER, F.W., Geol. Surv. Can.:
Redbed sequences in Canada, 1976-.

983. CHANDLER, F.W., Geol. Surv. Can.:
Proterozoic red beds of Richmond Gulf, Quebec, 1977-.

984. COOK, D.G., Geol. Surv. Can.:
Comparative studies of structural prototypes and/or sedimentary environments, 1970-.

985. CURRIE, K.L., Geol. Surv. Can.:
Stratigraphy and sedimentology of Silurian rocks of Gaspé, 1984-.

To determine the tectonic-stratigraphic setting of the Cabano, Point aux Trembles and Lac Raymond formations from the provenance, environment of sedimentation, and transporting mechanisms of the sedimentary materials.

986. DALRYMPLE, R.W., WOLF, R.R., DORR, J.J., Queen's Univ. (Geological Sciences):
Depositional environments of the Cambro-Ordovician Potsdam Group, Eastern Ontario, 1982-85; M.Sc. thesis (Wolf).

See:

Sedimentology of the Cambro-Ordovician sandstones of Eastern Ontario; Ontario Geol. Surv., Misc. Paper 121, p. 240-252, 1984.

Scattered outcrops of the Potsdam Sandstone on the Frontenac Axis consist primarily of terrestrial facies including braided fluvial and aeolian sediments. Tidally-dominated, subtidal to intertidal flat environments predominate in exposures bordering the Ottawa Valley Lowland. No strong correlation exists between environment and silica content due to diagenetic introduction of cementing materials.

987. GRAF, G.C., DIXON, O.A., Univ. Ottawa (Geology):
Carbonate buildups of the Upper Silurian Barlow Inlet Formation, Devon Island, Arctic Canada, 1984-87; M.Sc. thesis (Graf).

988. HARRISON, R., Alberta Research Council (Geol. Surv.):
Sedimentology and stratigraphy of the bitumen-bearing Upper Devonian Grosmont Formation of Northern Alberta, 1980-.

989. HEIN, F.J., MORISON, S.R., HUGHES, R., Univ. Alberta (Geology):
Sedimentology of placer gold deposits, Yukon, Northwest Territories; M.Sc. theses (Morison, Hughes).

See:

Placer deposits of Clear Creek drainage basin 115P, central Yukon; Yukon Exploration and Geology 1983, Indian and Northern Affairs Canada, Geol. Sec. Publ., Whitehorse, p. 50-54, 1984.

990. HEIN, F.J., ROBB, G.A., GRANT, S.K., DEAN, M.E., WOLBERG, A., ARNOTT, W., Univ. Alberta (Geology):
Sedimentology of shallow marine sandstones and conglomerates: Lower Cambrian Gog Quartzites; Cretaceous Viking Sandstones and Conglomerates: Cretaceous Bootlegger Sandstones, 1980-; M.Sc. theses (Robb, Grant, Dean, Wolberg), Ph.D. thesis (Arnott).

See:

Facies associations in storm and current-influenced shelf settings, Lower Cretaceous Viking Formation, south-central Alberta; Sedimentology of Shelf Sands and Sandstones, Can. Soc. Petrol. Geol. Res. Symp., Program with Abstracts, p. 40, 1984.

Development of facies models for shallow marine/offshore shelf sediments.

991. HISCOTT, R.N., HYDE, R.S., SOLOMON, S., Memorial Univ. (Earth Sciences):
Sedimentology, maturation, and coal potential of the Carboniferous Barachois Group, western Newfoundland; 1983-86; M.Sc. thesis (Solomon).

See:

Stratigraphy and sedimentology of some coal seams in the Carboniferous Bay St. George Basin, southwestern Newfoundland; Newfoundland Dept. Mines and Energy, Report 85-1, p. 168-176, 1985.

992. HISCOTT, R.N., MYROW, P., Memorial Univ. (Earth Sciences):
Sedimentation on a late Precambrian-Early Cambrian storm-dominated shelf, Chapel Island Formation, Newfoundland Avalon Zone, 1983-86; Ph.D. thesis (Myrow).

See:

Latest Precambrian to Early Cambrian basin evolution, Fortune Bay, Newfoundland: fault-bounded basin to platform; Can. J. Earth Sci., vol. 21, no. 12, p. 1379-1392, 1984.

993. HISCOTT, R.N., PICKERING, K.T., Memorial Univ. (Earth Sciences), Univ. London (Earth Sciences):
Sedimentation in a Middle Ordovician foreland basin, Cloridorme Formation, Gaspé, Québec, 1983-86.

See:

Reflected turbidity currents on an Ordovician basin floor, Canadian Appalachians; Nature, vol. 311, no. 5982, p. 143-145, 1984.

994. KERR, D., Université Ottawa (Géologie):
Late Quaternary stratigraphy and sedimentology in the Richardson River basin (T.N.O.), 1984-86; M.Sc. thesis.

See:

Marine regression and paleoenvironments during the Holocene in the Richardson River basin (T.N.O.); Géographie Physique et Quaternaire, Tome XXXVIII, vol. 2, 1985.

995. KOSTER, E.H., CURRIE, P.J., Alberta Research Council (Geol. Surv.), Tyrrell Mus. (Paleontol.):
Alluvial architecture and Dinosaur Provincial Judith River Formation, Dinosaur Provincial Park, southeastern Alberta, 1981-85.

Fieldwork for this first park-wide study of the 75 km^2 of Badlands' outcrop is complete, and earlier traverse data are now being incorporated with cliff photo mosaics. The form, process and interconnection of paleochannels, as well as the various taphonomic modes of vertebrates, are in their final phases of research.

996. KRAMERS, J.W., Alberta Research Council (Geol. Surv.):
Sedimentology of the Grand Rapids Formation, Wabasca oil sand deposit, Alberta, 1973-85.

997. LOSERT, J., Alberta Research Council (Geol. Surv.):
Jurassic/Cretaceous stratigraphic relationships in west-central Alberta, 1984-85.

998. MARTINI, I.P., Univ. Guelph (Land Resource Science):
Comparative sedimentology between cold climate sediments of Ontario and Permian coal measures of eastern Australia, 1983-87.

The research is the logical "geological" extension of extensive work done in the recent Pleistocene and Holocene of Ontario. A first field season was spent in 1984 in the Sydney and Bowen Basins in Australia. The work will continue in later years in the Sydney Basin and Tasmania, in collaboration with local geologists.

999. MARTINI, I.P., KWONG, K.P., Univ. Guelph (Land Resource Science):
Depositional characteristics and resource potential of the Whirlpool Sandstone, Lower Silurian, Ontario, 1982-83.

The Whirlpool Sandstone has been heavily quarried in the past and used in the construction industry under the name of Credit River Sandstone. Market demands and depletion of easily retrievable material require exploration for stone easily splittable (with good "reed") that is, of sandstone showing plane beds and parting lineations. This type of rock is formed in fluvial and shallow marine bars, thus paleoenvironmental reconstructions are required to find them.

1000. MUIR, I.D., DIXON, O.A., Univ. Ottawa (Geology):
Facies analysis of the Middle Devonian Ramparts Reef complex, Mackenzie Mountains, Northwest Territories, 1982-86; Ph.D. thesis (Muir).

See:

Facies analysis of a Middle Devonian sequence in the Mountain River-Gayna River area, N.W.T.; vol. 1, I.N.A.C. EGS 1984-6, p. 55-62, 1984.

Devonian Hare Indian-Ramparts (Kee Scarp) evolution, Mackenzie Mountains and subsurface Norman Wells, N.W.T.: Basin fill and platform reef development; C.S.P.G. Core Conference – Carbonates in subsurface and outcrop – Calgary, Alta., p. 82-101, 1984.

1001. NARBONNE, G.M., COMPANION, S., Queen's Univ. (Geological Sciences):
Sedimentology of the Rockcliffe Formation (Middle Ordovician) in eastern Ontario, 1983-85.

Research indicates that the Rockcliffe Formation can be divided into three laterally-extensive members that are readily recognized in the field and on well-logs. Sedimentologic and ichnologic studies are in progress.

1002. PACKARD, J.J., DIXON, O.A., Univ. Ottawa (Geology):
Silurian Barlow Inlet Formation of Cornwallis Island, Arctic Canada, 1977-84; Ph.D. thesis (Packard).

1003. POEY, J.-L., DIXON, O.A., Univ. Ottawa (Geology):
Carbonate facies of the Silurian shelf-to-basin transition, Baumann Fiord area, Ellesmere Island, Arctic, 1981-85; M.Sc. thesis (Poey).

1004. PURDY, D., Alberta Research Council (Geol. Surv.):
Devonian stratigraphic relationships between the West Pembina and Meekwap areas, central Alberta, 1983-85.

1005. ROTTENFUSSER, B.A., Alberta Research Council (Geol. Surv.):
Peace River oil sands study, 1975-85.

Geological and reservoir characteristics of the Peace River oil sands have been mapped on a regional scale through the use of core and geophysical logs. Four wells per township were used wherever possible.

1006. SCHRIJVER, K., CHEVÉ, S.R., TASSÉ, N., INRS-Géoressources:
Minéralisation cuprifère de la Formation de Dunphy, Fosse du Labrador, Québec, 1984-88.

Analyses des inclusions fluides et des isotopes de C et O des textures fenestrales de la dolomie de la Formation de Dunphy. D'autres types de gîtes cuprifères sont à l'étude.

1007. SCHRIJVER, K., TASSÉ, N., BERTRAND, R., CHAGNON, A., HÉROUX, Y., ACHAB, A., DESJARDINS, M., BERGERON, M., SANGSTER, D.F., INRS-Géoressources, Commission geologique du Canada:
Métallogénie des indices plombo-zincifères de la séquence sédimentaire de Gaspésie et du Bas St-Laurent, 1984-88.

Études métallogéniques exhaustives des minéralisations plombo-zincifères: structure, pétrographie, fractionnements isotopiques de S, Sr, C, O; inclusions fluides, etc.

1008. SCHRIJVER, K., TASSÉ, N., CHEVÉ, S.R., INRS-Géoressources:
Diagenèse de la Formation de Dunphy, Fosse du Labrador, Québec, 1984-87.

Cryptalgalaminate dolomite of the Dunphy Formation, Labrador Trough. Part II: Relations between its cements and copper mineralization.

1009. STROBL, R., WILLIAMS, G., Univ. Alberta (Geology):
Stratigraphy and sedimentology of the glauconitic sandstone member, Alhambra Oil Field of south-central Alberta, 1984-85; M.Sc. thesis (Strobl).

To model sheet sand complexes commonly found landward of barrier trends using available core and geophysical log data, within the densely drilled Alhambra Oil Field.

1010. TASSÉ, N., SCHRIJVER, K., BERTRAND, R., CHAGNON, A., HÉROUX, Y., ACHAB, A., DESJARDINS, M., INRS-Géoressources:
Métallogénie de la séquence carbonatée des Basses-Terres du Saint-Laurent, 1984-87.

Étude de la nature et de la répartition des indices minéralisés en relation avec les environnements d'accumulation et de diagenèse de l'encaissant carbonaté.

1011. VAN DE REEP, T.W., RENAUT, R.W., Univ. Saskatchewan (Geological Sciences):
Sedimentology of the Mississippian Midale Beds of the Tatagwa area, southeastern Saskatchewan, 1984-86; M.Sc. thesis (Van de Reep).

1012. VILKS, G., Geol. Surv. Can.:
Pleistocene-Holocene sedimentation in Hamilton Inlet and southeastern Labrador Shelf, 1983-.

1013. VON BITTER, P.H., GAIT, R.I., Royal Ontario Mus. (Invert. Palaeontology), Univ. Toronto:
Calcite pseudomorphs from the Pleistocene and Holocene of Canada: possible geothermometers, 1976-85.

1014. WALKER, D., HARRISON, R., Alberta Research Council (Geol. Surv.):
Stratigraphy of northern Grosmont Formation, northeast Alberta, 1983-85.

1015. WIGHTMAN, D.M., Alberta Research Council (Geol. Surv.):
Cold Lake oil sands, Lower Cretaceous, Alberta, 1980-85.

RECENT AND UNCONSOLIDATED SEDIMENTS/SÉDIMENTS RÉCENTS ET NON CONSOLIDÉS

1016. ADSHEAD, J.D., Geol. Surv. Can.:
Geological characterization of Arctic lakes: sediment properties and sedimentary processes, 1977-.

1017. AMOS, C.L., Geol. Surv. Can.:
Sediment dynamics at the head of the Bay of Fundy, 1978-.

1018. AMOS, C.L., Geol. Surv. Can.:
Stability and transport of sediments on Continental Shelves, 1980-.

1019. BORNHOLD, B.D., Geol. Surv. Can.:
Marine surficial geology and sedimentation, British Columbia, 1975-.

1020. BOYD, R., DOUMA, M., Dalhousie Univ. (Centre for Marine Geology):
Facies models from Sable Island Bank, 1983-85.

Fifty percent completed; initial publication, June '85; AAPG conference presentation March '85.

1021. BOYD, R., HALL, R.K., NAIR, S., HONIG, C., Dalhousie Univ. (Centre for Marine Geology):
Transgressive coastal sedimentation on the eastern shore of Nova Scotia, 1982-; M.Sc. theses (Hall, Nair, Honig).

See:

Shoreface translation and the Holocene stratigraphic record; Marine Geol., vol. 60, p. 391-412, 1984.

1022. CHEEL, R.J., Brandon Univ. (Geology):
Detailed study of laminae in sands and sandstones.

To document and interpret the textural characteristics of laminae comprising horizontal laminae, hummocky cross-stratification, swaly cross-stratification and cross-stratification formed by the migration of 2-D and 3-D large ripples.

1023. COAKLEY, J.P., KARROW, P.F., Environment Canada (National Water Res. Instit.):
Evolution of Lake Erie based on the postglacial sediment record below Long Point, Point Pelee, and Pointe-aux-Pins, 1985-.

The study uses sediment data from long cores through the major forelands of the Lake Erie north shore to infer evolutionary trends in the depositional environment of the lake. Conclusions from these data are combined with those from radiocarbon and pollen dating, shoreline geomorphology, and suitable models of postglacial uplift to present a new interpretation of Lake Erie postglacial levels and paleogeography.

1024. DALRYMPLE, R.W., Queen's Univ. (Geological Sciences):
Bedform dynamics, internal structures and the hydrodynamic interpretation of grain size distributions, 1979-84.

See:

Morphology and internal structures of sandwaves in the Bay of Fundy; Sedimentology, vol. 31, p. 365-382, 1984.

Runoff microdeltas: a potential emergence indicator in cross-bedded sandstones; J. Sed. Petrol., vol. 54, p. 825-830, 1984.

To document the relationship between bedforms, their internal structures, grain size distributions and the depositional processes in order to improve our ability to interpret such features in the rock record. The aim is to provide the means for more precise paleoenvironmental reconstruction.

1025. FORBES, D.L., Geol. Surv. Can.:
Beaufort Sea coast, 1983-.

1026. GONZALES, A., RENAUT, R.W., Univ. Saskatchewan (Geological Sciences):
Carbonate sedimentology of Kelly Lake, near Clinton, Interior British Columbia, 1984-86; M.Sc. thesis (Gonzales).

Sedimentological and geochemical study of Kelly Lake, where biochemically-precipitated carbonates are forming today on subaqueous delta-platforms. Study includes late Quaternary non-marine limestones of the adjoining region.

1027. GREENWOOD, B., Univ., Toronto (Geography and Geology):
Bedforms and sedimentary structures generated by shoaling and breaking waves, 1980-.

See:

Boundary roughness and bedforms in the surf zone; Marine Geology, vol. 60, p. 199-218, 1984.

The relationship between bedforms (together with the resulting sedimentary structures) and complex flows near the bed in a wave-dominated environment is being investigated. Cores document structures, and flow conditions are monitored using electromagnetic flowmeters. Facies generation under a wide range of flow conditions is being examined. A High Resolution Remote tracking sonar system is being developed for continuous bedform monitoring.

1028. HEIN, F.J., LONGSTAFFE, F.J., SEGO, D.C., Univ. Alberta (Geology, Civil Engineering):
Sedimentology, mineralogy and geotechnical features, fine-grained slope and slope-apron deposits, offshore Baffin Island, Queen Charlotte and Vancouver Islands and California Borderland, 1980-.

Determination of the influence of sedimentary facies and mineralogy on the geotechnical properties of modern fine-grained deep-water slope and slope-apron deposits.

1029. HISCOTT, R.N., EMORY-MOORE, M., Memorial Univ. (Earth Sciences):
Hydraulic equivalence and economic potential of heavy minerals in coastal environments and fjords of Baffin Island, 1983-85.

1030. HISCOTT, R.N., MOSHER, D., PIPER, D.J.W., Memorial Univ. (Earth Sciences), Geol. Surv. Can.:
Slope sedimentation in the Verrill Canyon area, Scotian Slope, 1983-86; M.Sc. thesis (Mosher).

Ten more piston cores to be collected in March 1985. Thesis to be complete in 1986.

1031. HOOGENDOORN, E.L., DALRYMPLE, R.W., Queen's Univ. (Geological Sciences):
Sedimentology and dynamics of shoreface-connected ridges, Sable Island Bank, Nova Scotia, 1982-; Ph.D. thesis (Hoogendoorn).

To document short and long term dynamics of shoreface-connected ridges on Sable Island Bank. Results of the study will be used to develop a facies model for shoreface connected ridges on storm-dominated shelves.

1032. JANSA, L.F., Geol. Surv. Can.:
Stratigraphy and sedimentology of the Mesozoic and Tertiary rocks of the Atlantic Continental margin, 1971-.

1033. LUTERNAUER, J.L., Geol. Surv. Can.:
Fraser Delta sedimentation, British Columbia, 1974-.

1034. LUTERNAUER, J.L., Geol. Surv. Can.:
Marine delta sedimentation, British Columbia, 1979-.

See:

Development-induced tidal flat erosion, Fraser River delta, British Columbia; Geol. Surv. Can., Paper 85-1A, p. 317-326, 1985.

Sedimentary framework of the Fraser River delta, British Columbia: preliminary field and laboratory results; ibid., p. 717-722, 1985.

1035. McCANN, S.B., ATKINSON, R., BYRNE, M.-L., MATSUSHITA, P.N., McMaster Univ. (Geography):
Barrier and Inlet sedimentation, north coast of Prince Edward Island, 1985-87; M.Sc. theses (Atkinson, Byrne, Matsushita).

1036. McCANN, S.B., KOSTASCHUK, R.A., McMaster Univ. (Geography):
Sedimentation in fjord deltas, North Bentincke Arm and Dean Channel, British Columbia, 1981-85; Ph.D. thesis (Kostaschuk).

1037. McCANN, S.B., KRAWETZ, M.T., McMaster Univ. (Geography):
Character and genesis of Arctic and Subarctic tidal flats, 1981-86; Ph.D. thesis (Krawetz).

1038. McLAREN, P., Geol. Surv. Can.:
Coastal geology and processes of British Columbia, 1978-.

1039. PIPER, D.J.W., Geol. Surv. Can.:
Near-surface geology of the Arctic Island channels, 1982-.

1040. RASHID, M.A., Geol. Surv. Can.:
Geochemical transformations and reactions of organic compounds in Recent marine sediments, 1975-.

1041. RENAUT, R.W., Univ. Saskatchewan (Geological Sciences):
Sedimentology and geochemistry of the saline lakes of the Fraser Plateau, north of Clinton, British Columbia, 1984-.

There are more than 100 saline lakes and playas within the region with highly variable chemical compositions ($Na\text{-}CO_3$, $Mg\text{-}CO_3$, $Na\text{-}SO_4$, $Mg\text{-}SO_4$). The aim is to understand the processes in brine evolution that lead to their diversity, and to study the sedimentary processes, particularly effects of winter freezing. Preliminary work has concentrated on trona-precipitation lakes (especially Last Chance Lake).

1042. RENAUT, R.W., LONG, P.R., Univ. Saskatchewan (Geological Sciences):
Sedimentology, petrology and geochemistry of travertine and tufa in Western Canada, 1984-.

Detailed study of sedimentology of various spring and fluvial travertines from British Columbia and Alberta. Aims: (1) Describe and document lithological types and relationship to depositional environment, (2) examine petrography and diagenesis, and (3) assess potential for using travertines for paleoenvironmental (especially climatic) analysis. Preliminary work completed on postglacial terracemound travertines, Clinton, British Columbia.

1043. RENAUT, R.W., OWEN, R.B., Univ. Saskatchewan (Geological Sciences):
Sedimentological and mineralogical studies of Rift Valley sediments from Kenya and Malawi, 1976-.

Continuing studies of lacustrine and hot spring sediments from several Rift Valley lake basins (Malawi, Bogoria, Baringo, Turkana) emphasizing diagenesis and paleoclimatic interpretation.

1044. SCHAFER, C.T., Geol. Surv. Can.:
The Recent paleoclimatic and paleoecologic rocks in fjord sediments, 1980-.

1045. SLEZAK, L., LAST, W., Univ. Manitoba (Earth Sciences):
Sedimentology and near-surface diagenesis in saline lakes of the Northern Great Plains, 1983-86; M.Sc. thesis (Slezak).

See:

Geology of sodium sulfate deposits of the Northern Great Plains; Forum on Industrial Minerals, Abstract Volume, p. 12, 1984.

1046. STAUFFER, M.R., Univ. Saskatchewan (Geological Sciences):
Study of rhomboidal lallize structure on sandy beaches, 1974-.

To determine the origin of this common but poorly understood feature.

1047. SYVITSKI, J.P.M., Geol. Surv. Can.:
The physical behaviour of suspended particulate matter (spm) in natural aqueous environments, 1981-.

1048. SYVITSKI, J.P.M., Geol. Surv. Can.:
Sedimentology of fjords, 1981-.

See:

Reconnaissance study of proglacial Stewart Lakes, Baffin Island, District of Franklin; Geol. Surv. Can., Paper 85-1A, p. 505-510, 1985.

1049. TAYLOR, R.B., Geol. Surv. Can.:
Coastal morphology and sediment dynamics, southeast and east Cape Breton Island, Nova Scotia, 1982-.

1050. TELLER, J.T., Univ. Manitoba (Earth Sciences):
Sedimentology and history of lacustrine basins in the Namib Desert, Namibia, 1983-.

Analyses of the two basins studied in the field in 1983 are complete. Additional field-work on other basins is planned.

1051. ZAITLIN, B.A., DALRYMPLE, R.W., Queen's Univ. (Geological Sciences):
Comparative sedimentology of high-energy macrotidal estuaries, Bay of Fundy, Canada, 1983-; Ph.D. thesis (Zaitlin).

See:

The effect of changes in tidal range on a sublittorial sequence, Bay of Fundy; Geomarine Letters, 1985.

A transgressive, mud-dominated meso-macro tidal estuary fill, Chignecto Bay, Bay of Fundy; 1984 SEPM Res. Conf. on the Origin, Characteristics, Transport and Deposition of Fine Grained Sediments, p. 214-215, 1984.

The research will produce an integrated description of the modern subenvironments and Holocene stratigraphy of the estuary-fill sediments in the Cobequid Bay-Salmon River (sandy) and Cumberland Basin (muddy) estuaries, with the ultimate aim being to construct comparative, transgressive and regressive facies models for use in the interpretation of similar ancient deposits.

STRATIGRAPHY/STRATIGRAPHIE

PRECAMBRIAN/PRÉCAMBRIEN

1052. AITKEN, J.D., Geol. Surv. Can.:
Helikian and Hadrynian stratigraphy, Eastern Cordillera and Interior Platform, 1973-.

See:

Strata and trace fossils near the Precambrian-Cambrian boundary, Mackenzie, Selwyn and Wernecke Mountains, Yukon and Northwest Territories: Discussion; Geol. Surv. Can., Paper 84-1B, p. 401-407, 1984.

Precambrian-Cambrian boundary sequence, Wernecke Mountains, Yukon Territory; Geol. Surv. Can., Paper 85-1A, p. 603-608, 1985.

1053. BARRETT, T.J., CHASE, R.L., BARRETT, T.J., Univ. Toronto (Geology):
Young seamounts in the northeast Pacific, 1983-86.

Studies are underway on basalts, base metal sulfides and metalliferous sediments from hydrothermal deposits discovered in 1983 and 1984 (on the Axial Seamount and Southern Explorer Ridge, respectively) by the Canadian submersible PISCES IV. Surface reconnaissance cruises will take place in the summer of 1985, and submersible dives in the summer of 1986.

1054. BARRETT, T.J., FRALICK, P.W., SCHNEIDERS, B., Univ. Toronto (Geology), Lakehead Univ. (Geology):
Stratigraphic, sedimentological and geochemical characteristics of some Precambrian iron-formations in western Ontario, 1982-85.

See:

Sediment redeposition in Archean iron formation: examples from the Beardmore-Geraldton greenstone belt, Ontario; J. Sediment. Petrol., vol. 55, no. 2, p. 205-212, 1985.

We are extending out studies on oxide-facies iron-formation associated with clastic sediments to include: 1) iron-formation associated with volcanics in an adjacent terrain immediately to the south, and 2) sulfide-bearing iron-formation on the north shore of Lake Superior.

1055. CAMPBELL, F.H.A., Geol. Surv. Can.:
Geology of the Coronation Gulf area, District of Mackenzie, 1977-.

See:

Stratigraphy of the upper part of the Rae Group, Johansen Bay area, northern Coronation Gulf area, District of Franklin; Geol. Surv. Can., Paper 85-1A, p. 693-696, 1985.

1056. CHANDLER, F.W., Geol. Surv. Can.:
Geology of the Helikian sediments and adjacent gneisses, Fury and Hecla Strait area, District of Franklin, 1979-.

1057. EISBACHER, G.H., Geol. Surv. Can.:
Stratigraphy, sedimentation, structure and tectonic setting of the Winderemere Supergroup, 1979-.

1058. HENDERSON, J.R., Geol. Surv. Can.:
Geology of the Foxe Fold Belt (east half), Baffin Island, District of Franklin, 1979-.

1059. HOFFMAN, P.F., Geol. Surv. Can.:
Hepburn batholith, Hepburn Lake map area, District of Mackenzie, 1977-.

1060. JACKSON, G.D., Geol. Surv. Can.:
Operation Borden, District of Franklin, 1977-.

See:

Neohelikian Bylot Supergroup of Borden Rift Basin, northwestern Baffin Island, District of Franklin; Geol. Surv. Can., Paper 85-1A, p. 639-649, 1985.

1061. SIMARD, A., Québec Ministère Énergie et Ressources:
Formation et évolution de la bande volcano-sédimentaire archéenne Frotet Evans, Québec, 1978-85; thèse de doctorat.

Voir:

Evolution du Volcanisme dans la région Frotet-Troilpus; Québec Ministère Énergie et Ressources, Et 83-18, 1985.

Partie est de la bande volcano-sédimentaire archéenne Frotet-Evans; Potentiel aurifère; CIM Sp. vol. 34, p. 457-472, 1984.

La cartographie au 1:20 000 de la région étudiée est terminée. La rédaction d'un rapport final est entreprise et doit se poursuivre l'an prochain.

PALEOZOIC/PALÉOZOIQUE

1062. AITKEN, J.D., Geol. Surv. Can.:
Lower Paleozoic stratigraphy, southern Rocky Mountains, Alberta and British Columbia, 1972-.

1063. BOLTON, T.E., Geol. Surv. Can.:
Silurian-Ordovician macrobiostratigraphy of Anticosti Island, Quebec, 1974-.

See:

The cryptostomate bryozoan **Sceptropora** (Rhabdomesina, Arthrostylidae) from Upper Ordovician rocks of southern Mackenzie Mountains, District of Mackenzie; Geol. Surv. Can., Paper 85-1A, p. 29-45, 1985.

1064. CECILE, M.P., Geol. Surv. Can.:
Lower Paleozoic basin-to-platform relationships in the Cordillera, District of Mackenzie-British Columbia-Yukon, 1977-.

See:

Evidence against large-scale strike-slip separation of Paleozoic strata along the Richardson-Hess fault system, northern Canadian Cordillera; Geology, vol. 12, no. 7, p. 403-407, 1984.

1065. CHRISTIE, R.L., Geol. Surv. Can.:
Geological reconnaissance, southeastern margin of Franklinian geosyncline, 1980-.

1066. DESROCHERS, A., Québec Ministère Énergie et Ressources:
Lithostratigraphie et sédimentologie des Iles de Mingan, Québec, 1982-85; thèse de doctorat.

Etablir une carte des lithofacies des Iles de Mingan. Comparer avec les séquences équivalents aux Appalaches. Phase de terrain completée. Rapport final attendu.

1067. FRITZ, W.H., Geol. Surv. Can.:
Cambrian biostratigraphy of the Canadian Cordillera, 1965-.

See:

Uppermost Precambrian and Lower Cambrian strata, northern Omineca Mountains, north-central British Columbia; Geol. Surv. Can., Paper 84-1B, p. 245-254, 1984.

Strata and trace fossils near the Precambrian-Cambrian boundary, Mackenzie, Selwyn, and Wernecke Mountains, Yukon and Northwest Territories: Reply; ibid., p. 409-412, 1984.

Lithology, trace fossils, and correlation of Precambrian-Cambrian boundary beds, Cassiar Mountains, north-central British Columbia; Geol. Surv. Can., Paper 83-13, 1985.

1068. GELDSETZER, H.H.J., Geol. Surv. Can.:
Carboniferous and Triassic strata of Appalachian region, 1974-.

1069. GELDSETZER, H.H.J., Geol. Surv. Can.:
Middle and Upper Devonian rocks in east-central British Columbia and west-central Alberta, 1979-.

1070. HOWIE, R.D., Geol. Surv. Can.:
Compilation of geoscientific data in the Upper Paleozoic basins of southeastern Canada, 1971-.

1071. KNIGHT, I., Newfoundland Dept. Mines and Energy:
Lower Paleozoic autochthonous rocks of the Great Northern Peninsula, western Newfoundland, 1976-87.

See:

Geological mapping of Cambrian and Ordovician sedimentary rocks of the Bellburns, Portland Creek and Indian Lookout map areas; Newfoundland Dept. Mines and Energy, Report 85-1, p. 79-88, 1985.

Mapping of the Grey River Enclave on a 1:50 000 scale has been completed. Probable Ordovician metasedimentary and metavolcanic rocks are surrounded by Devonian granitoids. These metamorphic rocks are correlated with similar rocks of Ordovician age in the Hermitage Flexure area of southern Newfoundland.

1072. LACHAMBRE, G., Québec Ministère Énergie et Ressources:
Stratigraphie du Groupe de Chaleurs, Nord de la Gaspésie, Québec, 1981-85.

Synthèse stratigraphique du Groupe de Chaleurs, nord de la Gaspésie. Phase de terrain terminée. Rapport final attendu.

1073. LENZ, A.C., McCRACKEN, A.D., Univ. Western Ontario (Geology):
Ordovician-Silurian boundary, northern Canadian Cordillera, 1981-.

1074. McCABE, H.R., Manitoba Dept. Energy and Mines:
Stratigraphic core hole program, 1967-.

Additional data were obtained for the Silurian correlation project, with regard to revision of correlations for the Fisher Branch

and Inwood Formations in the South Interlake area. In the Dawson Bay area, core holes were drilled to ground truth a reflective seismic profile, to determine if there is any deep structural control for Winnipegosis reef development; results were not definitive.

1075. McCABE, H.R., Manitoba Dept. Energy and Mines:
Paleozoic stratigraphy of the Cormorant Lake map sheet (63K), Manitoba, 1983-86.

Remapping of previously mapped areas as well as mapping of newly accessible areas was carried out in conjunction with a lake sediment geochemistry sampling program. A reference stratigraphic core hole was completed, and a number of holes were drilled through the thin Paleozoic section in the northern part of the map sheet, to determine the structure and lithology of the underlying Precambrian basement.

1076. MAYR, U., Geol. Surv. Can.:
Paleozoic stratigraphy of central and southern Ellesmere Island and northern Devon Island, District of Franklin, 1981-.

1077. MEIJER-DREES, N.C., Geol. Surv. Can.:
Middle and Upper Devonian rocks in the subsurface of west-central Alberta, 1981-.

See:

Correlation between Upper Devonian surface and subsurface map units in west-central Alberta; Geol. Surv. Can., Paper 84-1B, p. 337-349, 1984.

1078. MORROW, D.W., Geol. Surv. Can.:
Stratigraphy, sedimentology and diagenesis of Lower Paleozoic rocks in the northern Yukon Territory and in the region of the Mackenzie Mountains, Yukon Territory and Northwest Territories, 1984-.

1079. NASSICHUK, W.W., Geol. Surv. Can.:
Stratigraphy and paleontology of Upper Paleozoic rocks on parts of Ellesmere, Melville and Axel Heiberg Islands, District of Franklin, 1968-.

1080. NORFORD, B.S., Geol. Surv. Can.:
Ordovician and Silurian biostratigraphy of British Columbia, Alberta, Manitoba, Yukon, Mackenzie and Franklin, 1961-.

1081. NORRIS, A.W., Geol. Surv. Can.:
Devonian biostratigraphy of the northern Yukon Territory and adjacent District of Mackenzie and Alberta, 1970-.

1082. PEDDER, A.E.H., Geol. Surv. Can.:
Upper Silurian and Devonian biostratigraphy of western and northern Canada, 1968-.

See:

Dehiscens zone corals from the Lower Devonian of Yukon Territory; Geol. Surv. Can., Paper 84-1B, p. 315-325, 1984.

Lower Devonian rugose corals of Lochkovian age from Yukon Territory; Geol. Surv. Can., Paper 85-1A, p. 587-602, 1985.

1083. RICHARDS, B.C., Geol. Surv. Can.:
Carboniferous stratigraphy and sedimentology of northeastern British Columbia and northwestern Alberta, 1981-.

1084. ROBSON, J., Univ. Western Ontario (Geology):
Stratigraphy, biostratigraphy and sedimentology of Lower Paleozoic, northwestern Melville Island, 1984-87; M.Sc. thesis.

1085. ROUILLARD, M., Québec Ministère Énergie et Ressources:
Stratigraphie des Calcaires supérieurs de Gaspé, Québec, 1981-85; thèse de doctorat.

Voir:

Stratigraphie des Calcaires supérieurs de Gaspé entre Murdochville et le ruisseau Lesseps; Québec Ministère Énergie et Ressources, DP 84-12, 1985.

Synthèse de la stratigraphie de l'intervale entre le Groupe de Chaleurs et les Grès de Gaspé, dans les parties nord et est de la Gaspésie. Phase de terrain terminée. Rapport final attendu.

1086. SANFORD, B.V., Geol. Surv. Can.:
Lower Paleozoic geology of Eastern Canada, 1975-.

1087. STRUIK, L.C., Geol. Surv. Can.:
Stratigraphy and tectonics of the western margin of the southern Omineca Belt, British Columbia, 1982-.

See:

Pre-Cretaceous terranes and their thrust and strike-slip contacts, Prince George (east half) and McBride (west half), British Columbia; Geol. Surv. Can., Paper 85-1A, p. 267-272, 1985.

Dextral strike-slip through Wells Gray Provincial park, British Columbia; ibid., p. 305-309, 1985.

Conodonts and stratigraphy of upper Paleozoic limestones in Cariboo gold belt, east-central British Columbia; Can. J. Earth Sci., vol. 22, no. 4, p. 538-552, 1985.

1088. THOMPSON, R.I., Geol. Surv. Can.:
Structure and stratigraphy of Paleozoic and lower Mesozoic rocks in Halfway River map area, northeastern British Columbia, 1975-.

1089. VAN DE POLL, H.W., PATEL, I.M., RYAN, R.J., D'ORSAY, M., PLACE, C., Univ. New Brunswick (Geology):
Basin analysis of the Devonian and Permo-Carboniferous strata of Eastern Canada, 1969-; Ph.D. thesis (Ryan), M.Sc. theses (D'Orsay, Place).

See:

On the lithostratigraphy, sedimentology and paleobotany of the Pennsylvanian-Permian redbeds of Central and Western Prince Edward Island; Compte Rendu Neuvieme Cong. Internat. Strat. et Geol. du Carbonifere, p. 47-61. 1984.

Local detailed studies towards an overall basin analysis of the Devonian-Carboniferous-Permian of Eastern Canada have been in progress since 1969. Current studies include: 1) depositional and post depositional history of the Prince Edward Island redbeds, Prince Edward Island; 2) the Parrsboro area of Nova Scotia; 3) depositional history and physical diagenesis of the coal bearing strata of the Point Aconi area, Cape Breton Island, Nova Scotia; 4) evidence of physical diagenesis in Devonian and Permo-Carboniferous strata of Eastern Canada; 5) stratigraphy, facies and economic geology of the Tetamagouche synclinal area, Nova Scotia; 6) laboratory experiments in rheoplasis during sediment intrusion; 7) evolution of coal basins of central-northern Nova Scotia; and 8) paleoclimatic and depositional history of the Permo-Pennsylvanian transition sequence (coal measures to redbeds) of eastern Canada.

1090. ZODROW, E.L., University College of Cape Breton (Geology):
Trace-element study in Cape Breton coals, Sydney Coalfield, Nova Scotia.

In this study the stratigraphical distribution of 33 chemical elements is investigated for 9 successive coal seams, Sydney Coalfield. It was found that all chemical elements, including as content, show trends and that the complexity of the trends is related to coal thickness so that thinner seams can be distinguished from thicker ones. It is significant that the Si/Al, U/Cr, U/Sc, Sc/Cr, and Si/(Al + Ti) ratios are amazingly constant in the coalfield (including the thinner seams) and do not therefore reflect the underlying trends in the elements concerned. Analyzing Th/U ratios it can also be shown that they differ insignificantly from coals of similar age in the United States, and from the rocks in proximity of coals (i.e., the roof and seat rocks that contain the coals).

1091. ZODROW, E.L., CLEAL, C.J., University College of Cape Breton (Geology), Nature Conservancy Council, Newbury, England:
Biostratigraphical correlation of Westphalian-Stephanian age strata, Sydney Coalfield and South Wales, 1983-.

This study explores biostratigraphical correlation of Westphalian D aged strata between North America and Europe based on plant megafossils. Assuming that the eastern Canadian coalfields were westerly extensions of the area of coal deposition which extended over much of northern Europe, the conceptual correlation of these Canadian sequences are to be found in Great Britain.

MESOZOIC/MÉSOZOÏQUE

1092. ASCOLI, P., Geol. Surv. Can.:
Biostratigraphic zonation (Foraminifera-Ostracoda) of the Mesozoic and Cenozoic rocks of the Atlantic Shelf, 1971-.

1093. CALDWELL, W.G.E., NORTH, B.R., ATKIN, K.T.J., HARRISON, S., WHITTAKER, S.H., Univ. Saskatchewan (Geological Sciences):
Biostratigraphy of the Cretaceous System in the western Interior Basin, 1961-; M.Sc. theses (Atkin, Harrison, Whittaker).

See:

Early Cretaceous transgressions and regressions in the southern Interior Plains; Can. Soc. Petrol. Geol., Mem. 9, p. 173-203, 1984.

Cretaceous stage boundaries in the southern Interior Plains of Canada; Bull. Geol. Soc. Denmark, vol. 33, p. 57-69, 1984.

To refine the biostratigraphy of the Cretaceous System in the Canadian portion of the Western Interior basin using foraminiferal and molluscan faunas, so as to interpret more accurately and fully the history of the basin on a continental scale.

1094. DIXON, J., Geol. Surv. Can.:
Geology of the Beaufort-Mackenzie Basin, 1979-.

See:

Sequence analysis and nomenclature of Upper Cretaceous to Holocene strata in the Beaufort-Mackenzie Basin; Geol. Surv. Can., Paper 85-1A, p. 613-628, 1985.

1095. EMBRY, A.F., Geol. Surv. Can.:
Mesozoic stratigraphy and basin analysis of the Sverdrup Basin, Arctic Archipelago, 1975-.

See:

Stratigraphic subdivision of the Roche Point, Heiple Bay and Barrow formations (Schei Point Group), western Sverdrup Basin, Arctic Islands; Geol. Surv. Can., Paper 84-1B, p. 275-283, 1984.

The Wilkie Point Group (Lower-Upper Jurassic), Sverdrup Basin, Arctic Islands; ibid., p. 299-308, 1984.

The Schei Point and Blaa Mountain groups (Middle-Upper Triassic), Sverdrup Basin, Canadian Arctic Archipelago; ibid., p. 327-336, 1984.

1096. GIBSON, D.W., Geol. Surv. Can.:
Stratigraphic and sedimentological studies of Lower Cretaceous rocks, Rocky Mountain Foothills and Front Ranges, Alberta and British Columbia, 1975-.

1097. GIBSON, D.W., Geol. Surv. Can.:
Stratigraphy and sedimentology of the Lower Cretaceous Gething Formation, Rocky Mountain Foothills, Alberta and British Columbia, 1979-.

1098. GIBSON, D.W., Geol. Surv. Can.:
Stratigraphy and sedimentology of the Lower Cretaceous Hulcross and Boulder Creek formations, Rocky Mountain Foothills, Alberta and British Columbia, 1984-.

1099. GRIEVE, D.A., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Coal seam correlation, south half of Elk Valley coalfield, British Columbia, 1985-86.

Detailed drill-core logging within an area already mapped at 1:10 000-scale will enhance knowledge of the sedimentology and stratigraphy of the coal-bearing Jurassic-Cretaceous Kootenay Group within one portion of the East Kootenay coalfields. Use will be made of geophysical logs and previously collected channel coal samples.

1100. JANSA, L.F., Geol. Surv. Can.:
Reconnaissance field study of the Mesozoic sequences outcropping on the Iberian Peninsula, 1977-.

1101. KILBY, W.E., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Tonsteins and bentonites in northeastern British Columbia, 1983-87.

See:

Tonstein and bentonite correlations in northeast British Columbia (93O,P,I; 94A); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, 1985.

Identification and delineation of a framework of recognizable volcanic ash marker horizons in the coal measures of northeastern British Columbia.

1102. POULTON, T.P., Geol. Surv. Can.:
Jurassic biostratigraphy of selected areas of western and Arctic Canada, 1976-.

1103. PRICE, L.L., Geol. Surv. Can.:
Upper Cretaceous-Tertiary geology of Tuktoyaktuk Peninsula and adjacent areas, District of Mackenzie, 1983-.

1104. STELCK, C.R., KOKE, K.R., Univ. Alberta (Geology):
Foraminiferal zonation of the Albian of Western Canada, 1947-; M.Sc. thesis (Koke).

See:

Foraminifera of the **Stelckiceras** Zone, Basal Hasler Formation (Albian), northeastern British Columbia; Can. Soc. Petrol. Geol., Mem. 9, p. 271-280, 1984.

This work supplements an on going study of a definition of the extent of the Colorado-Mannville unconformity of Western Canada.

1105. STOTT, D.F., Geol. Surv. Can.:
Jurassic and Cretaceous Minnes Group, Alberta and British Columbia, 1978-.

1106. STOTT, D.F., Geol. Surv. Can.:
Syntheses of Mesozoic and Cenozoic rocks of eastern Cordillera and Plains, 1981-.

1107. TEMPELMAN-KLUIT, D.J., Geol. Surv. Can.:
Stratigraphy, structure and metallogeny of the northern part of the Intermontane Belt (Whitehorse trough) in the Canadian Cordillera, 1977-.

1108. TIPPER, H.W., Geol. Surv. Can.:
Biostratigraphic study of Mesozoic rocks in the Intermontane and Insular Belts of the Canadian Cordillera, 1975-.

1109. WADE, J.A., Geol. Surv. Can.:
Regional subsurface geology of Mesozoic and Cenozoic rocks of the Atlantic continental margin, 1972-.

CENOZOIC/CÉNOZOÏQUE

1110. YORATH, C.J., Geol. Surv. Can.:
The Canadian Pacific continental margin, 1977-.

See:

Lithoprobe – Phase 1: southern Vancouver Island: preliminary analyses of reflection seismic profiles and surface geological studies; Geol. Surv. Can., Paper 85-1A, p. 543-554, 1985.

STRUCTURAL GEOLOGY/TECTONICS/GÉOLOGIE STRUCTURALE/TECTONIQUE

ALBERTA/ALBERTA

1111. LANGENBERG, W., Alberta Research Council (Geol. Surv.):
Structural geology of coal measures, 1981-85.

See:

Structural and sedimentological framework of lower Cretaceous coal-bearing rocks of the Grande Cache area; Can. Soc. Petrol. Geol., Mem. 9, p. 533-540, 1984.

Final report will be published in 1986.

1112. MOTT, J.A., DIXON, J.M., HELMSTAEDT, H., Queen's Univ. (Geological Sciences):
Structural and stratigraphic analysis of the Kananaskis west half map sheet, southern Rocky Mountains, 1984-86; M.Sc. thesis (Mott).

1:50 000-scale mapping of structural features and a stratigraphic study of Cambro-Ordovician-Silurian sediments and a sub-Devonian angular unconformity to determine their control on structural style in the region and relationships to neighboring map areas.

BRITISH COLUMBIA/ COLOMBIE-BRITANNIQUE

1113. BARDOUX, M., TEMPELMAN-KLUIT, D.J., BROWN, R.L., Carleton Univ. (Geology), Geol. Surv. Can.:
Structural geology in the Kelowna area, south-central British Columbia, Canada; Ph.D. thesis (Bardoux).

See:

The Kelowna detachment zone, Okanagan Valley, south-central British Columbia; Geol. Surv. Can., Paper 85-1A, p. 333-339, 1985.

1114. CAMPBELL, R.B., Geol. Surv. Can.:
Geology of the Cariboo Mountains, British Columbia, 1968-.

1115. GERASIMOFF, M.D., DIXON, J.M., HELMSTAEDT, H., Queen's Univ. (Geological Sciences):
Relationship between Caribou Group and Shuswap Metamorphic Complex, Cariboo Mountains, British Columbia, 1984-; Ph.D. thesis (Gerasimoff).

See:

Post-metamorphic thrust faulting on the northeastern margin of the Shuswap Metamorphic Complex, Wells Gray Provincial Park, British Columbia; Geol. Surv. Can., Paper 85-1A, p. 327-331, 1985.

To determine relationship between Cariboo group stratigraphy and Shuswap Metamorphic Complex between Wells Gray Provincial Park and North Thomson River. U-Pb system radiometric dating of pre-metamorphic plutonic rocks and thin-section petrography are planned in preparation for field work in summer of 1985 and 1986.

1116. JOURNEAY, J.M., DIXON, J.M., CARMICHAEL, D.M., Queen's Univ. (Geological Sciences):
Kinematic and thermotectonic evolution of the northern Monashee Complex: a basement duplex, Omineca hinterland, southeastern British Columbia, 1980-85; Ph.D. thesis (Journeay).

Metastable pelitic mineral assemblages within the northern Monashee Complex record a history of tectonic burial, uplift and diachronous quenching that is punctuated by two distinct episodes of high-temperature metamorphic recrystallization. Both metamorphic events are inferred to have been generated by episodic overthrusting and thermal relaxation within the Monashee Duplex during its uplift and eastward displacement along foreland propagating zones of crustal shear.

1117. LEECH, G.B., Geol. Surv. Can.:
Geological survey of NTS 82 J W½ (Kananaskis Lakes, W½), British Columbia, 1962-.

1118. RAY, G.E., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Coquihalla gold belt project, British Columbia, 1981-85.

See:

Surface and underground geological studies at the Carolin Gold Mine; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1985-1, p. 132-138, 1985.

The gold-sulphide mineralization at Carolin Mine in southwestern British Columbia is preferentially confined to favourable wacke horizons within the hinge portions of large scale, asymetric antiformal fold structures. An analysis of the structural data at the mine can be used to predict the orientation and extension of the ore-related folds.

1119. REES, C., BROWN, R.L., MOORE, J.M., Carleton Univ. (Geology):
Structure and metamorphism of the Omineca-Intermontane Belt boundary at Quesnel Lake, British Columbia, 1981-85; Ph.D. thesis (Rees).

1120. SCAMMELL, R.J., BROWN, R.L., Carleton Univ. (Geology):
Stratigraphy and structure of the northwest flank of Frenchman Cap Dome, Monashee Complex, British Columbia; 1984-; M.Sc. thesis (Scammell).

See:

Stratigraphy and structure of the northwestern flank of Frenchman Cap Dome, Monashee Complex, British Columbia: preliminary results; Geol. Surv. Can., Paper 85-1A, p. 311-316, 1985.

To document the nature of the Monashee Décollement and determine the stratigraphy and structure of the bounding plates at the north end of Frenchman Cap Dome. A month-long preliminary study has provided some insights which will be tested with further field work during the summer of 1985.

1121. TAYLOR, G.C., Geol. Surv. Can.:
Structural and stratigraphic studies of northeast British Columbia, 1981-.

1122. THOMPSON, R.I., Geol. Surv. Can.:
Detailed geological study of selected areas within the Foothills and Rocky Mountain belts of the Monkman Pass map area – with emphasis on the structure, 1978-.

NEW BRUNSWICK/ NOUVEAU-BRUNSWICK

1123. LEGER, A., WILLIAMS, P.F., Univ. New Brunswick (Geology):
Movement zones in southern New Brunswick, 1984-86; M.Sc. thesis (Leger).

A study of kinematic indicators for major faults in southern New Brunswick aimed at better understanding the complex faulting history of the northern Appalachians.

1124. McALLISTER, A.L., MORETON, C., WILLIAMS, P.F., Univ. New Brunswick (Geology):
The structure and stratigraph of the Heath Steele Mines ore zones, Newcastle, New Brunswick, 1984-88; Ph.D. thesis (Moreton).

To determine the stratigraphic and structural relationships of the host rocks and mineralization at Heat Steele Mines.

1125. MAWER, C.K., WILLIAMS, P.F., Univ. New Brunswick (Geology):
Crystalline rocks from the 1982 Miramichi (New Brunswick) earthquake epicentre, 1983-85.

1126. STRINGER, P., BURKE, K.B.S., Univ. New Brunswick (Geology):
Age of the Minister Island dyke in the St. Andrews area, New Brunswick, and its relation to structure, 1983-85.

See:

Structure in southwest New Brunswick; Geol. Assoc. Can., Fieldtrip Guidebook Excursion 9, 1985.

Apparent continuity of the dyke (K-Ar date 189 ± 8 Ma) across the Oak Bay fault indicates that the 4 km sinistral strike-slip displacement is pre- early Jurassic. 300-?2500 m offsets of the dyke on other strike-slip faults indicate post-early Jurassic tectonic activity in southwest New Brunswick.

NEWFOUNDLAND/LABRADOR/ TERRE-NEUVE/LABRADOR

1127. ANTONUK, C., ELLIOTT, C., LaFRANCE, B., WILLIAMS, P.F., Univ. New Brunswick (Geology):
Structural and tectonic studies in southwestern New World Island, Newfoundland, 1982-88; Ph.D. theses (Elliott, LaFrance), M.Sc. thesis (Antonuk).

See:

Stratigraphy, structure and timing of deformation of southwestern New World Island, Newfoundland; Geol. Surv. Can., Paper 85-1B, 1985.

To examine stratigraphic and structural elements to determine the deformational and tectonic history of southwestern New World Island, and to assess its significance with respect to the evolution of the northern Appalachian Orogen.

1128. CARON, A., WILLIAMS, P.F., Univ. New Brunswick (Geology):
Kinematic indicators along faults in Newfoundland, 1984-87; Ph.D. thesis (Caron).

A detailed examination of fault kinematics in Newfoundland. Work so far has been on the Dover Fault which separates the Avalon and Gander Zones.

NORTHWEST TERRITORIES/ TERRITOIRES DU NORD-OUEST

1129. CULLEN, R., FYSON, W.K., Univ. Ottawa (Geology):
Stratigraphy, structures and metamorphism of volcanic and sedimentary rocks, Fenton Lake, Slave Province, Northwest Territories, 1985-; M.Sc. thesis (Cullen).

1130. FYSON, W.K., Univ. Ottawa (Geology):
Structural patterns and tectonics of metamorphic terrains, Slave Province, 1972-.

1131. HANMER, S., Geol. Surv. Can.:
Displacement history of major shear zones in western Churchill Province, 1983-.

1132. HENDERSON, J.R., Geol. Surv. Can.:
Geology of the Punrhyn Fold Belt, Melville Peninsula, District of Franklin, 1976-.

1133. HILDEBRAND, R.S., Geol. Surv. Can.:
Hottah Terrane, Distrit of Mackenzie, 1982-.

See:

Geology of the Rivière Grandin map area (Hottah Terrane and western Great Bear Magmatic Zone), District of Mackenzie; Geol. Surv. Can., Paper 85-1A, p. 375-383, 1985.

Geology of the Rainy Lake-White Eagle Falls area, District of Mackenzie: early Proterozoic cauldrons, stratovolcanoes and subvolcanic plutons; Geol. Surv. Can., Paper 83-20, 1984.

1134. HOFFMAN, P.F., Geol. Surv. Can.:
Externides of Wopmay Orogen, District of Mackenzie, 1981-.

1135. HURDLE, E., FYSON, W.K., Univ. Ottawa (Geology):
Stratigraphy, structures and metamorphism of the Yellowknife Supergroup, Clan Lake, Northwest Territories, 1981-84; M.Sc. thesis (Hurdle).

1136. JACKSON, J., Memorial Univ. (Earth Sciences):
Metamorphic and structural evolution of Archean rocks in the Keskarrah Bay, Point Lake area, Northwest Territories, 1981-85; M.Sc. thesis.

See:

Metamorphism of the Yellowknife Supergroup, Keskarrah Bay, Point Lake, Slave Structural Province, N.W.T.; Geol. Assoc. Can.-Mineral. Assoc. Can., Program with Abstracts, vol. 9, p. 76, 1984.

Structure and metamorphism of the Keskarrah Bay area, Point Lake, N.W.T.: Second Preliminary Report; Contrib. Geol. Northwest Territories, volume 1, Indian and Northern Affairs Canada, EGS 1984-6, p. 47-54, 1984.

1137. OKULITCH, A.V., Geol. Surv. Can.:
Stratigraphy, structure and tectonics, Innuition Fold Belt, Ellesmere Island, District of Franklin, 1979-.

1138. ST-ONGE, M.R., Geol. Surv. Can.:
Thrust-fold belt of Wopmay Orogen – internal zone, District of Mackenzie, 1981-.

1139. WILLIAMS, G.K., Geol. Surv. Can.:
Northern basin analysis program: Redstone and Great Slave Lake map areas, District of Mackenzie, 1971-.

NOVA SCOTIA/NOUVELLE-ÉCOSSE

1140. GAO, RUIXIANG, WHITE, J.C., YEO, G. Univ. New Brunswick (Geology), Geol. Surv. Can.:
Fault geometry and deformation, Pictou Basin, Nova Scotia, 1985-87; M.Sc. thesis (Gao).

1141. KEPPIE, J.D., CHATTERJEE, A.K., Nova Scotia Dept. Mines and Energy:
Metallotectonic map of Nova Scotia, 1984-89.

1142. MAWER, C.K., Univ. New Brunswick (Geology):
Tectonic history of the Meguma Terrane, Nova Scotia, 1983-85.

The Meguma Terrane of Nova Scotia deformed as one half of a major dextral strike-slip shear zone, rendering questionable present plate tectonic reconstructions and paleomagnetic determinations in that terrane.

ONTARIO/ONTARIO

1143. BERGER, P., HELMSTAEDT, H., DIXON, J.M., Queen's Univ. (Geological Sciences):
Structural geology of northern Dome and southern McDonough Townships, Red Lake, northwestern Ontario, 1982-85; M.Sc. thesis (Berger).

The cleavage which characterizes the rocks in the eastern part of the Red Lake belt makes up a continuous pattern parallel to the batholiths which bound the belt. The study area is located near an inflection in the curving pattern. The deformational event which resulted in the cleavage formation was preceeded by a folding event, and followed by a regional fracturing event. The cleavage is axial planar to minor folds in sedimentary rocks and crosscut by shear structures/zones in volcanic rocks.

1144. HANMER, S., Geol. Surv. Can.:
Structural studies in the Grenville Province of Ontaro and western Quebec, 1983-.

See:

Structure of the junction of three tectonic slices; Ontario gneiss segment, Grenville Province; Geol. Surv. Can., Paper 84-1B, p. 109-120, 1984.

A structural reconnaissance of the northwest boundary of the central metasedimentary belt, Grenville Province, Ontario and Quebec; ibid., p. 121-131, 1984.

The potential use of planar and elliptical structures as indicators of strain regime and kinematics of tectonic flow; ibid., p. 133-142, 1984.

1145. ROUSELL, D.H., NAPOLI, M.G., TREOIRIOL, D.P., Laurentian Univ. (Geology):
Geology of the Wanapitei mafic complex, Grenville Province, Ontario, 1983-; M.Sc. thesis (Napoli).

1146. THIVIERGE, R.H., FYSON, W.K., Univ. Ottawa (Geology):
Structural relationships at the northwestern margin of the central metasedimentary belt, Bancroft-Barry's Bay area, Grenville Province, Ontario, 1981-; M.Sc. thesis (Thivierge).

1147. TREMBLAY, L., WHITE, J.C., Univ. New Brunswick (Geology):
Deformation and recrystallization of plagioclase, Parry Sound, Ontario, 1983-85; M.Sc. thesis (Tremblay).

1148. WILLIAMS, H.R., BUCK, S.E., Brock Univ. (Geological Sciences):
Study of the Quetico-Wabigoon Subprovince boundary east of Lake Nipissing, 1984-86; M.Sc. thesis (Buck).

1149. WILLIAMS, H.R., BUCK, S.E., Brock Univ. (Geological Sciences):
Study of shear zones in the Geraldton area, Ontario, 1984-87.

QUÉBEC

1150. BERNARD, D., ST-JULIEN, P., Université Laval (Géologie):
Etude tectono-stratigraphique du synclinorium de Gaspé-Connecticut Valley; thèse de maîtrise (Bernard).

1151. COUSINEAU, P.A., ST-JULIEN, P., Université Laval (Géologie):
Les roches du Domaine oceanique à l'est de la rivière Chaudière, Appalaches du sud du Québec, 1982-85; thèse de doctorat en sciences (Cousineau).

See:

A new lithostratigraphy of the Magog Group, southeastern Quebec, Canada; Northeastern Section, Abstracts with Programs, vol. 17, no. 1, 1985.

Paleotectonic environment of the oceanic domain rocks from southern Quebec Appalachians; Geol. Assoc. Can.-Mineral. Assoc. Can., Program with Abstracts, vol. 10, p. A12, 1985.

Le projet vise à reconnaitre la lithostratigraphie et à faire une analyse structurale des roches du Domaine oceanique afin 1) d'en etablir un mode tectonique, 2) d'en reconnaitre le potentiel metallogenique.

1152. COUSINEAU, P.A., ST-JULIEN, P., Université Laval (Géologie):
Stratigraphie et structurographie des roches du domaine océanique situé à l'est de la rivière Chaudière (Québec du Sud), 1982-86.

Voir:

L'Ordovicien entre Saint-Georges et le lac Etchemin; Québec Ministère Énergie et Ressources, DP 84-08, 1985.

Etude de la stratigraphie et de la structurographie de la région afin d'établir un modèle stratigraphique, géodynamique et gitologique.

1153. GOULET, N., BÉLANGER, M., Univ. Québec à Montréal, Québec Ministère Énergie et Ressources:
Evolution tectonique de la Fossse du Labrador (partie nord), Québec, 1984-86.

Objectifs: 1) une compréhension du style tectonique ainsi que du mécanisme de déformation de la Fosse du Labrador, 2) une connaissance des métallotectes dans la Fosse dans la mesure ou elles sont liées à l'histoire tectono-métamorphique.

1154. MARQUIS, R., BÉLAND, J., Université de Montréal (Géologie):
Etude tectonique et métamorphique d'un segment de l'anticlinorium des Monts Sutton des Appalaches du Québec (Québec du sud), 1983-87; thèse de doctorat en sciences (Marquis).

Etude de la stratigraphie et de la structurographie de la région afin d'établir un modèle stratigraphique, géodynamique et gitologique.

1155. PROCYSHYN, E., Québec Ministère Énergie et Ressources:
Mines Madeleine et Murdochville, Québec, 1982-86.

Etablir un modèle tectonique détaillé des régions adjacentes aux Mines Madeleine et à Mines Gaspé, et un modèle des relations entre structure et minéralisations. Phase de terrain completée pour Mines Madeleine. Continue à Murdochville en 1985.

1156. ST-JULIEN, P., DE BROUCKER, G., Université Laval (Géologie):
Stratigraphie et structure des groupes de Mictaw et de Maquereau, Région de Port-Daniel, Gaspésie, Québec, 1981-85; thèse de doctorat (de Broucker).

SASKATCHEWAN/SASKATCHEWAN

1157. STAUFFER, M.R., GENDZWILL, D.J., Univ. Saskatchewan (Geological Sciences):
Fracture patterns in the central prairies, 1983-86.

To determine the relationships (if any) between fracture orientation and topography; the relationships (if any) between fractures and modern earthquakes, the time and mechanics of origin of the fractures.

YUKON TERRITORY/TERRITOIRE DU YUKON

1158. COOK, D.G., Geol. Surv. Can.:
Structural studies in the Mackenzie Arc, Franklin Mountains and Colville Hills, Yukon and District of Mackenzie, 1975-.

1159. HARRISON, J.C., Geol. Surv. Can.:
Structure and tectonics of Melville and adjacent islands, 1984-.

1160. NORRIS, D.K., Geol. Surv. Can.:
Structural geology of northern Yukon Territory and northwestern District of Mackenzie, 1969-.

1161. TEMPELMAN-KLUIT, D.J., Geol. Surv. Can.:
Stratigraphy, structure and metallogeny of Pelly Mountains and Yukon Plateau, Yukon Territory, 1973-.

GENERAL/GÉNÉRALITÉS

1162. CONNELLY, J.N., DIXON, J.M., CARMICHAEL, D.M., HANMER, S., Queen's Univ. (Geological Sciences); Geol. Surv. Can.:
Natural strain variation patterns: investigation of potential mechanical interactions between the Elzevir Batholith and its Host Rock, 1983-85; M.Sc. thesis (Connelly).

Strain patterns around and within a Grenville granitoid batholith (1250 Ma) have been documented which suggest there was significant strain produced during its final emplacement. Further work will 1) consider final emplacement mechanisms, 2) investigate the effects of regional metamorphism and deformation and 3) compare experimental centrifuge-model strain patterns with the results of the field study.

1163. DIXON, J.M., Queen's Univ. (Geological Sciences):
Centrifuge modelling of foreland folding and thrusting, 1984-86.

See:

Centrifuge models of foreland folding: nucleation of localized fold packets and thrust faults beneath low-amplitude anticlines in competent units; Geol. Soc. Amer., Abstracts with Programs, vol. 16, p. 490, 1984.

Scale models, with complex stratigraphy and accurately caled layer thickness, subjected to horizontal compression in a centrifuge, exhibit realistic fold and thrust-fault structures. Study aims to document the influence of stratigraphy on deformation patterns and the interplay between folding and faulting.

1164. DIXON, J.M., FARRAR, E., Queen's Univ. (Geological Sciences):
Tectonic consequences of ridge subduction, 1979-85.

See:

Overriding of the Indian-Antarctic ridge: the origin of Emerald basin and the migration of late Cenozoic volcanism in southern New Zealand-Campbell plateau; Tectonophysics, vol. 104, p. 243-256, 1984.

Mantle upwelling that underlies an oceanic spreading ridge may continue beneath a continent following overriding of the ridge by the continent. Consequences include anomalous heat flow, conductivity anomalies, widespread and migrating bimodal volcanism, uplift and horizontal extension of the continental crust.

1165. HODGSON, C.J., MORRITT, R.F.C., Queen's Univ. (Geological Sciences):
Tectonics of Brazil south of the Amazon Basin, structure, stratigraphy and gold mineralization of the Quadrilatero Ferrifero region of Brazil, 1984-86; Ph.D. thesis (Morritt).

Ongoing work includes a detailed structural and stratigraphic examination of the Quadrilatero Ferrifero of Brazil in order to better understand the gold mineralization. This work focuses on an area of structural importance identified in the radar structural analysis.

1166. KING, L.H., Geol. Surv. Can.:
Bedrock and surficial geology, Grand Banks, 1973-80.

1167. MAWER, C.K., WILLIAMS, P.F., Univ. New Brunswick (Geology):
Development of flattening strains in shear zones, 1983-85.

A new mechanism, termed domain spiralling, is postulated for developing local flattening strains in shear zones.

1168. SOUTHER, J.G., Geol. Surv. Can.:
Study of the Cenozoic evolution of the western Cordillera, 1977-.

1169. SRIVASTAVA, S.P., Geol. Surv. Can.:
Comparative studies of the continental margins of the Labrador Sea and of the North Atlantic, 1978-.

1170. STRINGER, P., Univ. New Brunswick (Geology):
Relation of cleavage to folding in the Appalachian-Caledonian orogenic belt, 1975-85.

1171. TSIKOS, G., DIXON, J.M., Queen's Univ. (Geological Sciences):
Scale modelling and fracture analysis in a centrifugally-induced diapiric strain field, 1982-85; M.Sc. thesis (Tsikos).

We employ a 20 000 q centrifuge to investigate the structural effects that salt domes have on their overburden. Using analogue scale models, the hypothesis that cover rocks may accommodate the diapir by slip on four sets of conjugate faults is tested.

1172. WHITE, J.C., Univ. New Brunswick (Geology):
Transmission electron microscopy studies of sub-solidus behaviour in deformed minerals, 1981-.

1173. WILLIAMS, P.F., Univ. New Brunswick (Geology):
Deformation mechanisms and tectonic processes, 1980-.

See:

Incremental deformation and fabric development in a KCl/Mica mixture; J. Structural Geol., vol. 6, no. 4, p. 391-398, 1984.

Crystalline rocks as possible palaeoseismicity indicators; Geology, vol. 13, p. 100-102, 1985.

Deformed rocks are being studied with a view to better understanding the processes involved in their deformation. The ultimate goal is a better understanding of the processes involved in large scale tectonics.

1174. WILSON, B.C., HELMSTAEDT, H., DIXON, J.M., Queen's Univ. (Geological Sciences):
Practical and theoretical aspects of deformation and intrusion, 1982-86; Ph.D. thesis (Wilson).

Field work in the Red Lake volcanic belt has led to hypotheses accounting for the locus, style and orientation of many gold ore bodies and to a general Continuum "failure" criterion for matter.

1175. ADAIR, R.N., Univ. Alberta (Geology):
The volcanology, stratigraphy, mineralogy and geochemistry of the Crowsnest Formation at its type section west of Coleman, Alberta, 1983-85; M.Sc. thesis.

1176. BOSTOCK, H.H., Geol. Surv. Can.:
Volcanic rocks of the Appalachian region, 1973-.

1177. CHURCH, B.N., British Columbia Ministry Energy, Mines, Petrol. Res. (Geol. Br.):
Geology of Tertiary basins and related resources, south-central British Columbia, 1975-85.

Comprehensive guidebook on these rocks is completed.

1178. GIRAULT, M., Université Dolomieu à Grenoble:
Volcanologie et metallogenie de la zone entre les mines Manitou et Louvem, Québec, 1983-86; thèse de doctorat.

Voir:

Volcanoclastites de la zone Manitou-Louvem; Québec Ministère Énergie et Ressources, DP 84-42, 1985.

Etude locale de la nature et de l'évolution du volcanisme explosif à l'Est de Val d'Or (Abitibi-Est) et celle des minéralisations Cu-Zn-Ag-Fers associées.

1179. HAMILTON, T.S., Geol. Surv. Can.:
Volcanic rocks of the Insular Belt and adjacent deep ocean, British Columbia, 1982-.

1180. HICKSON, C.J., MATHEWS, W.H., Univ. British Columbia (Geological Sciences):
Late Cenozoic geologic history of the Wells Gray-Clearwater area, British Columbia, 1981-86; Ph.D. thesis (Hickson).

1181. IMREH, L., Québec Ministère Énergie et Ressources:
Gitologie prévisionnelle, 1972-85.

Voir:

Sillon de la Motte-Vassan et son avant pays méridional: synthese volcanologique, litho-stratigraphique et gitologique; Québec Ministère Énergie et Ressources, MM 8204, 1984.

Synthèse des travaux réalises entre 1971-1982: mise en évidence et caractérisation des volcanismes type plaine sous-marine et type arc insulaire; définition des métallotectes des minéralisations Ni, Au, Zn-Cu-Ag, Zn-Ag associées aux diverses phases du volcanisme.

1182. JOHNS, G.W., COOPER, I.S., Ontario Geol. Surv.:
Kakagi Lake-Rowan Lake regional geology, Ontario, 1984.

The Berry River formation has been subdivided into volcanic facies on the basis of distance from a central vent and mode of deposition. Further study of the Kakagi Lake group will result in a facies analysis of these pyroclastic rocks.

1183. McCUTCHEON, S.R., New Brunswick Dept. Nat. Res. (Geol. Surv. Br.):
Evolution of Mount Pleasant Caldera, 1982-86.

1184. NIXON, G.T., Queen's Univ. (Geological Sciences):
Geology of Iztaccihuatl Volcano and the northern Sierra Nevada, central Mexico, 1985; Ph.D. thesis.

A geological map is being prepared for publication at a scale of 1:50 000 accompanied by a brief report containing geochemical analyses and K-Ar dates of Iztaccihualt lavas.

1185. NIXON, G.T., DEMANT, A., ARMSTRONG, R.L., Queen's Univ. (Geological Sciences), Univ. British Columbia (Geological Sciences), Univ. d'aux Marseille III:
K-Ar geochronometry of Quaternary volcanic rocks in the Trans-Mexican Volcanic Belt, 1985.

Paper to be included in a series of special publications on the Trans-Mexican Volcanic Belt, Editor S.P. Verma, Geofisica Internacional.

1186. PADGHAM, W.A., Indian and Northern Affairs Canada (Geol. Div.):
Detailed mapping of portions of the Negus Formation Kam Group, Yellowknife volcanic belt, 1982-86.

Elaborate on unequalled exposures of Archean volcanic-sedimentary rocks. Research of origin of various volcanic/-sedimentary features. Refine Yellowknife volcanic belt stratigraphy.

1187. WESTGATE, J.A., WALTER, R.C., Univ. Toronto (Geology):
Late Cenozoic tephrochronology of the Middle Awash region, Ethiopia. Ignimbrites in the Ethiopian Rift, 1982-.

See:

The Cindery Tuff in hominoid-bearing Pliocene sediments of the Middle Awash, Ethiopia; Nature, vol. 308, p. 26-31, 1984.

1188. WILSON, C., Québec Ministère Énergie et Ressources:
Volcanites cambro-ordoviciennes de la Gaspésie, Québec, 1983-86; thèse de maîtrise.

Etude pétrologique des volcanites du cambro-ordovicien de la Gaspésie; classification par origine tectonique. Phase de terrain completée. Analyses et traitement des données à compleier.

1189. ZENTILLI, M., WALKER, J.A., REYNOLDS, P.H., FUSS, D.M., MULJA, T., Dalhousie Univ. (Geology), Northern Illinois Univ.:
Evolution of Copiapo caldera complex, Chile, and related gold-silver mineralization, 1984-89; M.Sc. thesis (Fuss).

See:

Characteristics of the San Andres Ignimbrite, Central Andes, Chile (27°S); North-central Sec. Geol. Soc. Amer., Abstracts with Program, vol. 17, no. 1, 1985.

Volcan Copiapo and the search for parent magmas in the Central Andes; Geol. Assoc. Can.-Mineral. Assoc. Can., Program with Abstracts, vol. 10, p. A66, 1985.

Volcan Copiapo is a Late Tertiary volcanic complex. Composite volcanic cones, voluminous pyroclastic flows, caldera collapse, hydrothermal circulation and formation of significant gold, silver and sulphur deposits are being placed into a comprehensive volcanologic-metallogenic model.

Acadia University,
Department of Geology,
Wolfville, Nova Scotia
B0P 1X0

Alberta Research Council,
Geological Survey,
3rd Floor, Terrace Plaza,
4445 Calgary Trail South,
Edmonton, Alberta
T6H 5R7

Alberta University,
Department of Geology,
158 Earth Sciences Bldg.,
Edmonton, Alberta
T6G 2E3

Alberta University,
Department of Zoology,
CW312 Biological Sciences Bldg.,
Edmonton, Alberta
T6G 2E9

Brandon University,
Department of Geology,
Brandon, Manitoba
R7A 6A9

Bristol University,
Department of Geology,
Bristol, England
BS8 1TR

British Columbia University,
Department of Geological Sciences,
6339 Stores Road, University Campus,
Vancouver, British Columbia
V6T 2B4

British Columbia University,
Dept. of Geophysics and Astronomy,
No. 129-2219 Main Mall,
University Campus,
Vancouver, British Columbia
V6T 1W5

British Columbia Ministry of Energy,
Mines, and Petroleum Resources,
Geological Branch,
Parliament Buildings,
Victoria, British Columbia
V8V 1X4

Brock University,
Department of Geological Sciences,
St. Catharines, Ontario
L2S 3A1

Calgary University,
Department of Geology and Geophysics,
2500 University Drive N.W.,
Calgary, Alberta
T2N 1N4

Canada Centre for Mineral and
Energy Technology (CANMET)
Department of Energy, Mines and
Resources,
555 Booth Street,
Ottawa, Ontario
K1A 0G1

Carleton University,
Department of Geology,
Ottawa, Ontario
K1S 5B6

College of Cape Breton,
Department of Geology,
P.O. Box 5300,
Sydney, Cape Breton,
Nova Scotia
B1P 6L2

Dalhousie University,
Department of Geology,
Halifax, Nova Scotia
B3H 3J5

École Polytechnique,
Département de Génie minéral,
Campus de l'Université de Montréal,
Case postale 6079, Succ. "A",
Montréal, Québec
H3C 3A7

Environment Canada,
National Hydrology Research Institute,
Ottawa, Ontario
K1A 0E7

Geological Survey of Canada,
Department of Energy, Mines
and Resources,
601 Booth Street,
Ottawa, Ontario
K1A 0E8

Guelph University,
Dept. of Land Resource Science,
Guelph, Ontario
N1G 2W1

Indian and Northern Affairs Canada,
Geology Office,
Box 1500,
Yellowknife, N.W.T.
X1A 2R3

Lakehead University,
Department of Geography,
Postal Station P,
Thunder Bay, Ontario
P7B 5E1

Lakehead University,
Department of Geology,
Postal Station P,
Thunder Bay, Ontario
P7B 5E1

Laurentian University,
Department of Geology,
Ramsey Lake Road,
Sudbury, Ontario
P3E 2C6

Laval University,
Département de géologie et
minéralogie,
Cité Universitaire,
Ste. Foy, P.Q.
G1K 7P4

Manitoba University,
Department of Earth Sciences,
Winnipeg, Manitoba
R3T 2N2

Manitoba Department of Energy
and Mines,
Mineral Resources Division,
993 Century Street,
Winnipeg, Manitoba
R3H 0W4

McMaster University,
Department of Geography,
1280 Main St. W.,
Hamilton, Ontario
L8S 4K1

Memorial University of Newfoundland,
Department of Earth Sciences,
St. John's, Newfoundland
A1B 3X5

Ministère de l'Énergie et des
Ressources du Québec,
Service de la Géologie,
1620, boul. de l'Entente,
Québec, Québec
G1S 4N6

Mount Allison University,
Department of Geology,
Sackville, New Brunswick
E0A 3C0

National Museum of Natural Sciences,
Paleobiology Division,
Ottawa, Ontario
K1A 0M8

National Research Council,
Division of Building Research,
Ottawa, Ontario
K1A 0R6

New Brunswick University,
Department of Geology,
Box 4400,
Fredericton, New Brunswick
E3B 5A3

New Brunswick University,
Department of Geology,
Tucker Park,
P.O. Box 5050,
Saint John, New Brunswick
E2L 4L5

New Brunswick Department
of Natural Resources,
Mineral Resources Division,
P.O. Box 6000,
College Hill Road,
Fredericton, New Brunswick
E3B 5H1

Newfoundland Department of
Mines and Energy,
Mineral Development Division,
P.O. Box 4750,
St. John's, Newfoundland
A1C 5T7

Nova Scotia Department of
Mines and Energy,
1690 Hollis Street,
P.O. Box 1087,
Halifax, Nova Scotia
B3J 2X1

Ontario Ministry of Natural Resources,
Ontario Geological Survey,
11th Floor - 77 Grenville Street,
Toronto, Ontario
M5S 1B3

Ottawa University,
Département de Géographie,
165 Waller Street,
Ottawa, Ontario
K1N 6N5

Ottawa University
Department of Geology,
Ottawa, Ontario
K1N 6N5

Polar Continental Shelf Project,
Department of Energy, Mines
and Resources,
880 Wellington Street,
Ottawa, Ontario

Université du Québec à Québec,
Institut National de la Recherche
Scientifique (INRS-Géoressources),
Complex Scientifique,
2700, rue Einstein,
Case postale 7500,
Ste-Foy, Québec
G1V 4C7

Université du Québec à Trois-Rivières,
Section de géographie,
C.P. 500,
Trois-Riviéres, Québec
G9A 5H7

Queen's University,
Department of Geological Sciences,
Kingston, Ontario
K7L 3N6

Royal Ontario Museum,
Department of Invertebrate
Palaeontology,
100 Queen's Park,
Toronto, Ontario
M5S 2C6

Royal Ontario Museum,
Department of Mineralogy and Geology,
100 Queen's Park,
Toronto, Ontario
M5S 2C6

Royal Ontario Museum,
Department of Vertebrate Palaeontology,
100 Queen's Park,
Toronto, Ontario
M5S 2C6

Saskatchewan Museum of Natural History,
Wascana Park,
Regina, Saskatchewan
S4P 3V7

Saskatchewan University,
Department of Geological Sciences,
Saskatoon, Saskatchewan
S7N 0W0

Saskatchewan Department of
Energy and Mines,
Saskatchewan Geological Survey,
1211-1914 Hamilton Street,
Regina, Saskatchewan
S4P 4V4

Saskatchewan Research Council,
Geology Division,
30 Campus Drive,
Saskatoon Saskatchewan
S7N 0X1

Université de Sherbrooke,
Département de Géographie,
Sherbrooke, Québec
J1K 2R1

Simon Fraser University,
Department of Physics,
Burnaby, British Columbia
V5A 1S6

Sir Sandford Fleming College,
School of Natural Resources,
Frost Campus,
P.O. Box 8000,
Lindsay, Ontario
K9V 5E6

Toronto University,
Department of Geography,
100 St. George Street,
Toronto, Ontario
M5S 1A7

Toronto University,
Department of Geology,
Toronto, Ontario
M5S 1A1

Waterloo University,
Department of Earth Sciences,
Waterloo, Ontario
N2L 3G1

Western Ontario University,
Department of Geology,
Biological and Geological Building,
London, Ontario
N6A 5B7

Department of Energy, Mines and Resources, Research Agreements 1984-85/
Ministère de l'Énergie, des mines et des ressources, conventions de recherche 1984-85

BRITISH COLUMBIA

University of British Columbia

Bustin, R.M. (Geological Sciences)
Structure, sedimentology and distribution of coal in the Groundhog coalfield, central British Columbia, $6,000.00.

Russell, R.D. (Geophysics and Astronomy)
Development of a fluxgate gradiometer for ocean bottom magnetotelluric measurements, $8,500.00.

Simon Fraser University

Huntley, D.J. (Physics)
Dating of sediments by thermoluminescence, $5,000.00.

Roberts, M.C. (Geography)
The internal architecture of the Fraser Delta, $6,400.

ALBERTA

University of Alberta

Charlesworth, H.A.K. (Geology)
Structure of Upper Cretaceous-Paleocene coal-bearing and adjacent strata between Cardinal and McLeod Rivers, Alberta, $3,000.00.

Chatterton, B.D.E. (Geology)
Silurian trilobites from the Mackenzie Mountains, northwestern Canada, $3,000.00.

Cruden, D.M. (Geology)
Geotechnical characterization of materials in slope movements in the Cordillera, $8,000.00.

Jones, B. (Geology)
Stratigraphy and facies relationships of Middle to Upper Devonian clastic formations, Melville Island, Canadian Arctic Archipelago, $5,000.00.

Jones, F.W. (Physics)
An investigation of the relationships between geothermal and other geophysical and geological data in high temperature regions of the western Canadian sedimentary, $5,000.00.

Longstaffe, F.J. (Geology)
Stable isotope geochemistry of sedimentary host rocks, Tom Pb-Zn property, MacMillan Pass, Selwyn Basin, $7,500.00.

Morton, R.D. (Geology)
The use of Landsat-MSS-and TM-data, together with geophysical and geological data bases, for possible application to mineral exploration in Western Newfoundland, $6,700.00

Nesbitt, B.E. (Geology)
An investigation of the origin of Au in the White Channel of the Klondike, Yukon, $7,500.00

University of Calgary

Hills, L.V. (Geology and Geophysics)
Fossil Charophyta of Canada, $3,000.00.

Oldershaw, A.E. (Geology and Geophysics)
Stratigraphy, sedimentology, paleoecology and diagenesis of the southwestern Ellesmere Island, $5,000.00.

Simony, P.S. (Geology and Geophysics)
Tectonics and metamorphism in North Thompson area, British Columbia, $12,500.00.

SASKATCHEWAN

University of Regina

Binda, P.L. (Geology)
Stratiform copper occurrences of the Belt Supergroup in Canada, $5,800.00.

University of Saskatchewan

Caldwell, W.G.E. (Geological Sciences)
Early Cretaceous foraminiferal biostratigraphy of northeastern British Columbia, $6,000.00.

Gendzwill, D.J. (Geological Sciences)
Natural and induced seismicity in Saskatchewan, $12,000.00.

Hajnal, Z. (Geological Sciences)
Athabasca Basin physical properties, $20,000.00.

Hajnal, Z. (Geological Sciences)
High resolution seismic study of Haughton impact structure, $9,000.00.

MANITOBA

University of Manitoba

Ayres, L.D. (Earth Sciences)
Morphology and genesis of shallow water, subaqueous Proterozoic basalt flows, Flin Flon, Manitoba, $4,000.00.

Cerney, P. (Earth Sciences)
Geochemistry of Nb-Ta ore minerals in granitic pegmatites, $6,000.00.

Halden, N.M. (Earth Sciences)
Geochemical analysis of major granitic bodies and associated neosome at the Churchill-Superior boundary, $3,000.00.

Hall, D.H. (Earth Sciences)
Geoscience research and its effectiveness in influencing technology in the fields of: exploration for mineral resources, mining, and mineral processing, $8,000.00.

Last, W.N. (Earth Sciences)
Geology and geochemistry of sodium sulfate deposits in the Plains of Western Canada, $5,000.00.

ONTARIO

Carleton Universtiy

Brown, R.L. (Geology)
Stratigraphy and structure of the western margin of the northern Selkirk Mountains, $11,500.00.

Michel, F.A. (Geology)
Nature and history of ground ice, central Yukon, $12,500.00.

Watkinson, D.H. (Geoscience Centre)
Genesis of the East Kemptville tin deposit and the host Davis Lake monsogranite, southwest Nova Scotia, $7,500.00.

Lakehead University

Fralick, W.F. (Geology)
Regional stratigraphy and economic sedimentology of coarse clastics in the Beardmore-Geraldton greenstone belt, $4,700.00.

McMaster University

Crocket, J.H. (Geology)
Rare earth elements as aids to mineral exploration for Archean volcanic hosted gold deposits, $7,000.00.

Ford, D.C. (Geography)
Stable isotope studies of the massive sulfide deposits, wall rocks, and contained ground ice at Nanisivik Zinc/Lead Mine, Baffin Island, $5,900.00.

Heidebrecht, A.C. (Civil Engineering)
Site specific earthquake ground motion records and related design base shears for Canadian cities, $8,500.00.

Kramer, J.R. (Geology)
Trace metal – humics – metal oxides – interactions in an estuarine enviroment, $10,000.00.

Thode, H.G. (Chemistry)
Sulphur and carbon isotope ratios in Canadian banded iron formations, $3,650.00.

University of Ottawa

Rust, B.R. (Geology)
Sedimentary environments of the Bar River Formation, Huronian Supergroup, Ontario, $3,500.00.

Queen's University

Dalrymple, R.W. (Geological Sciences)
Sedimentation and bedform mobility on Sable Island Bank, $8,100.00.

Farrar, E. (Geological Sciences)
Geochronology and isotopic thermal history of igneous and metamorphic rocks from the central Kootenay Arc and Purcell Anticlinorium, S.E. British Columbia, and their tectonic implications, $4,800.00.

Gilbert, R. (Geography)
Origin of intertidal flats in Pangnirtung Fiord investigated by drilling their sediments, $2,500.00.

Nichol, I. (Geological Sciences)
Partitioning of gold in humus as key to understanding gold dispersion in humus, $10,000.00.

Notley, K.R. (Mining Engineering)
Computer applications in underground mine design, $12,000.00.

Roeder, P.L. (Geology)
Petrogenesis of komatiite-related nickel-sulfide mineralization, Dee's Flow, Munro Township, Ontario, $3,500.00.

Royal Ontario Museum

Wicks, F.J. (Mineralogy and Geology)
Mineralogy and geochemistry of the chrysotile asbestos deposits of the Eastern Townships, Quebec, $7,500.00.

Sir Sanford Fleming College

Watts, S.H. (Geology)
Bedrock weathering processes and products beyond the Laurentide Ice Margin in northern Yukon Territory, $4,500.00.

University of Toronto

Bailey, R.C. (Physics)
Geologic interpretation with borehole gamma-ray spectrometer data, $2,400.00.

Campbell, I.H. (Earth and Planetary Science)
Factors controlling the solubility of chromite in silicate liquids, $5,000.00.

Dunlop, D.J. (Geophysics)
Thermal and chemical remagnetization as a guide to tectonic and metamorphic history, $5,200.00.

Halls, H.C. (Geology)
Paleomagnetic and fabric studies of igneous rocks from the Sverdrup Basin, $8,000.00.

Naldrett, A.J. (Geology)
Activity-composition relations of Ni, Cu and Pt in silicate melts and the segregation of magmatic sulfide ores, $10,000.00.

University of Waterloo

Fritz, P. (Earth Sciences)
Stable isotope geochemistry of organic lake sediments: paleoclimatic and paleoenvironmental applications, $6,300.00.

Karrow, P.F. (Earth Sciences)
Fossils and C-O isotope variations, interglacial Don Formation, Toronto, $5,800.00.

Roberts, R.G. (Earth Sciences)
A comparative study of the relationships between the compositions of gold-bearing quartz veins and their non-vein, gold-bearing host rocks, $7,500.00.

University of Western Ontario

Lenz, A.C. (Geology)
Stratigraphy, biostratigraphy and sedimentology of Lower Paleozoic formations, N.W. Melville Island, $8,000.00.

Mereu, R.F. (Geophysics)
Seismic studies of subsurface structures of the crust and upper mantle, $5,000.00.

QUEBEC

Concordia University

Lamothe, M. (Geology)
TL dating of the Duck Hawk bluffs, Banks Island, Canadian Arctic, $2,300.00.

École Polytechnique

Bazinet, R. (Génie minéral)
Magnétolleurique haute fréquence, $15,000.00.

Chouteau, M. (Génie minéral)
Optimisation de la méthode magnétotellurique (MT) pour la prospection minière, $8,000.00.

Université Laval

Allard, M.K. (Centre d'études nordiques)
Le Quaternaire et le pergélisol sur la côte sud de la baie d'Ungava, Québec, $7,800.00.

Séguin, M.K. (Géologie)
Levés gravimétriques de détail dans la région de Baie St-Paul, Québec: corrélation avec la géologie structurale et la séismicité de cette région, $5,000.00.

McGill University

Crossley, D.J. (Applied Geophysics)
Analysis of seismic refraction data for the Abitibi greenstone belt, $6,500.00.

Granberg, H.B. (Geography)
Schefferville permafrost research, $5,000.00.

Hesse, R. (Geological Sciences)
Fluid inclusions as paleothermometers and paleobarometers in the Québec Appalachians, $4,000.00.

Hynes, H. (Geological Sciences)
Tectonic evolution of the Labrador Trough at 58°N, $7,000.00.

Mountjoy, E.W. (Geological Sciences)
Bedrock geology, structure and metamorphism of the footwall of the Purcell thrust in the western Selwyn Mountains, eastern British Columbia (parts of 83D7, 8, 9, and 10), $9,000.00.

Rowlands, N. (Mining and Metallurgical Eng.)
A geotechnical study of Longwall Face Gateroads in the Cape Breton coalfield, $10,000.00.

Université de Montréal

Hubert, C. (Géologie)
The evolution of the southern section of the Abitibi Belt: an integration of geological studies, $6,000.00.
Mamet, B. (Géologie)
Carboniferous foraminifers and algae, British Columbia, Yukon and Districts of Mackenzie and Franklin, $5,000.00.

Université du Québec à Chicoutimi

Dimroth, E.D. (Sciences appliquées)
L'origine de la zonation chimique des coussins et des hyaloclastites associés, $4,500.00.
Woussen, G. (Sciences de la Terre)
Etude magmatotectonique dans le Saguenay-Lac-St-Jean et la Basse Côte Nord, $9,300.00.

NEW BRUNSWICK

University of New Brunswick

Williams, P.F. (Geology)
Geological mapping in eastern Notre Dame Bay, $5,100.00.

NOVA SCOTIA

Acadia University

Barr, S.M. (Geology)
Mineralization associated with granitoid intrusions, Cape Breton Island, Nova Scotia, $6,000.00.

CANMAP Research Institute

Akhavi, M.S.
Application of a GIS Analysis System Transfer for Digital Landsat Signature Extraction and Image Classification/Enhancement in exploration geology, $6,250.00.

Dalhousie University

Boyd, R.B. (Geology)
Transgression coastal sedimentation on the eastern shore of Nova Scotia, $4,800.00.
Huntley, D.A. (Oceanography)
Velocities, stresses and sediment movement at the seabed, $13,000.00.
Jamieson, R.A. (Geology)
Geology, geochemistry, metallogeny, and age of western Cape Breton volcanic-clastic complex, $6,000.00.
Ryall, P.J.C. (Geology)
Development of a deep-towed reconnaissance vehicle using a two-part tow system, $4,000.00.

St. Mary's University

Pe-Piper, G. (Geology)
Tectonic significance of Mesozoic volcanicity of the eastern North American continental margin as indicated by isotope geochemistry, $8,500.00.

University College of Cape Breton

Zodrow, E.L. (Geology)
Stephanian flora, Sydney coalfield, Nova Scotia, $5,000.00.

Nova Scotia Research Foundation

Bidgood, D.E.T. (Foundation Corp.)
Development of a spark-discharge shear wave generator, $8,000.00.

NEWFOUNDLAND

Memorial University of Newfoundland

Gale, J.E. (Earth Sciences)
Optimizing the effectiveness of mine dewatering wells in fractured rocks, $6,500.00.
Hay, A.E. (Physics)
Acoustic remote sensing and the sedimentology of Arctic Fjords, $8,000.00.
Hiscott, R.N. (Earth Sciences)
Sedimentology of Arctic nearshore environments with special reference to heavy mineral distribution, $3,500.00.
Macpherson, J. (Geography)
Palynological investigations, Newfoundland, $5,500.00.
Murthy, G.S. (Earth Sciences)
Paleomagnetic investigations of Paleozoic (and Precambrian) rock formations from the island of Newfoundland and interpretation of results in terms of tectonics, $3,000.00.
Quinlan, G.M. (Earth Sciences)
The dynamic evolution of flexural basins, arches and domes, $14,400.00.
Rivers, T. (Earth Sciences)
A structural, petrologic, gravimetric and geochronologic study across the boundary between the Groswater Bay and Lake Melville terranes near Sandwich Bay, Grenville Province, eastern Labrador, $9,000.00.
Rogerson, R.J. (Earth Sciences)
Glacial geology of the Selamiut Range, Torngat Mountains, Labrador, $8,800.00.
Stevens, R.K. (Earth Sciences)
Graptolites of the Cow Head Group, western Newfoundland, $4,000.00.
Williams, H. (Earth Sciences)
Geology of the Humber Arm Allochthon between Bonne Bay and Parsons Pond, western Newfoundland, $7,500.00.

Department of Environment Canada, Water Resources Research Support Program, Research Agreements 1984-85/Ministère des Environnement Canada, Programme de subvention à la recherche sur les ressources en eau, conventions de recherche 1984-85

McMaster University

Thode, H.G. (Chemistry)
Sulphur isotope distribution patterns and their relationship to acid rain in selected lakes north of Lake Superior, $12,000.00.

Memorial University of Newfoundland

Gale, J.E. (Earth Sciences)
Assessment of physical and chemical controls on groundwater and contaminant velocities in fractured porous rock aquifers, $18,000.00.

University of Waterloo

Barker, J.F. (Earth Sciences)
Aspects of biodegradation and adsorption in the transport of volatile organics in groundwaters at a special waste disposal site, $18,000.00.

Department of Indian and Northern Affairs Canada, Research Contracts 1984-85/ Ministère de les Affaires indiennes et du Nord Canada, contracts de recherche 1984-85

ALBERTA

University of Alberta

Jones, B. (Geology)
Geological mapping of the Cape Crawford Formation on the Brodeur Peninsula.
Smith, D. (Geology)
Mineralogy, chemistry, genesis, Thor Lake. Rare metal deposits, Blackford Lake.

MANITOBA

University of Manitoba

Cerny, P. (Earth Sciences)
Litho-chemical studies on samples collected in the Yellowknife pegmatite field.

ONTARIO

Carleton University

Donaldson, J.A. (Geology)
Stratigraphic and economic studies in East Arm, Great Slave Lake.
Moore, J. (Geology)
Mapping Calder River (Ellington Lake area). Geological studies, Hottah Lake area.

University of Ottawa

Dixon, O.A. (Geology)
Stratigraphy and sedimentology: Imperial and Canol formations.
Kretz, R. (Geology)
Metamorphism and metasomatism of graywacke argillite near Yellowknife.
St. Onge, D. (Géographie)
The surficial geology of the Richardson River basin.

Queen's University

Helmstaedt, H. (Geological Sciences)
Yellowknife volcanic belt, complete stratigraphic studies, assemble geological maps.

University of Toronto

Goodwin, A.M. (Geology)
Petrogenesis of Slave Province volcanic belt.

Yeekay Consultants Ltd. Ottawa

Prest, V.K.
Study of esker, drumlin, and moraine complex west of Dismal Lake.

U.S.A.

Washington University, St. Louis

Bowring, S.A. (Geology)
Geochronology of Bear/Slave Province.

Polar Continental Shelf Project Field Support Non-Governmental Activities 1984–85/Aide de l'étude du Plateau continental polaire en faveur d'activités non gouvernementales pour 1984–85

BRITISH COLUMBIA

University of British Columbia

Slaymaker, O.
Geology-geomorphology, Horton River, Northwest Territories.
Stager, J.
Geography, Old Crow, Yukon.

Simon Fraser University

Crampton, C.B.
Geomorphology-paleontology, Arctic Islands.

ALBERTA

University of Alberta

England, J.
Geology-glacial geomorphology, northern Ellesmere Island, District of Franklin.
Jones, B.
Geology-sedimentology, paleontology, Brodeur Peninsula, Baffin Island, District of Franklin.

University of Calgary

Jeffries, M.
Glaciology, north coast of Ellesmere Island, District of Franklin.
Oldershaw, A.E.
Geology-stratigraphy, sedimentology, paleoecology, southwestern Ellesmere Island, District of Franklin.

SASKATCHEWAN

University of Saskatchewan

Skwara, T.
Geology-paleontology, Tuk, District of Mackenzie.

ONTARIO

Carleton University

Bell, K.
Geology-geochronology, northern Yukon.
Donaldson, J.A.
Geology-sedimentology, stratigraphy, Borden Peninsula, Bylot Island, Ellesmere Island, District of Franklin.
Michel, F.A.
Geology, coastline ice exposures, Yukon coast.
Taylor, M.
Economic geography, Polaris Mine, Baffin Island, District of Franklin.

McMaster University

McCann, S.B.
Geology-coastal geomorphology, Cape Herschel, Ellesmere Island, District of Franklin.
Risk, M.J.
Geology, Baffin Island and Hall Beach, Melville Peninsula, District of Franklin.
Woo, M.
Hydrology, Resolute, Cornwallis Island, District of Franklin.

University of Ottawa

Dixon, O.A.
Geology-paleontology, sedimentology, southwestern Devon Island, District of Franklin.

Sir Sanford Fleming College

Watts, S.H.
Geology-bedrock weathering, Old Crow Range, Yukon.

University of Toronto

Halls, H.C.
Geology-paleomagnetics, Melville Island, Axel Heiberg Island, Ellesmere Island, District of Franklin.
Lewkowicz, A.G.
Geomorphology-permafrost, Banks Island, District of Franklin.
Ritchie, J.C.
Geology-lake sediments, Tuk Peninsula, Horton River, Anderson Ridge, Northwest Territories.
Schwerdtner, W.M.
Geology-stratigraphy, Axel Heiberg Island, District of Franklin.

Trent University

Glaciology, Expedition Fiord.

University of Western Ontario

Lenz, A.C.
Geology-paleontology, Cornwallis Island, Melville Island, Devon Island, Ellesmere Island, District of Franklin.
Nesbitt, H.W., Young, G.M.
Geology-glacial sediments, northern Baffin Island, District of Franklin.

NOVA SCOTIA

Dalhousie University

Blanchard-Williamson, M.C.
Volcanic geology, Ellesmere Island, District of Franklin.

NEWFOUNDLAND

Memorial University of Newfoundland

Burden, E.
Geology-palynology, Baffin Island, District of Franklin.
Keliher, T.E.
Glaciology, southeastern Ellesmere Island, District of Franklin.

U.S.A.

Carnegie Museum

Irvine, N.
Geology, Coppermine region, Northwest Territories.
West, R.M.
Geology-paleontology, Arctic Islands.

Purdue University

Zinsmeister, W.J.
Geology-paleontology, Ellesmere Island, Banks Island, Bylot, District of Franklin.

University of Washington

Washburn, A.L.
Geology-periglacial features, Resolute, Cornwallis Island, District of Franklin.

DENMARK

Greenland Geological Survey

Henriksen, N.
Geology, northwestern Greenland/Alert.

SWITZERLAND

G.I. Zurich

Ohmura, A.
Glaciology, Axel Heiberg Island, District of Franklin.

Ontario Geological Survey, Geoscience Research Grants 1984–85/
Commission géologique de l'Ontario subventions de recherche en sciences de la terre pour 1984–85

Carleton University

Donaldson, J.A.
Study of sedimentary rocks and strata-bound mineralization in the Cobalt Region of northeastern Ontario, $24,800.00.
Moore, J.M.
Study of the significance of chloritoid in the altered volcanic rocks, $20,300.00.
Watkinson, D.H.
The geological setting and genesis of the Cameron Lake gold deposit, $16,400.00.

Lakehead University

Kissin, S.A.
Genesis of pegmatites in the Quetico Gneiss Belt of northwestern Ontario, $9,325.00.

McMaster University

Crocket, J.H.
Genesis of Precambrian iron formations – links with base and precious metal mineralization, $38,150.00.
Risk, M.J.
Sedimentology of the Long Rapids Formation in the Moose River Basin, $14,190.00.
Schwarcz, H.P.
Surplus isotope studies of Archean gold deposits, $7,100.00.

University of Ottawa

Rust, B.R.
Sedimentology of the Bar River Formation, Huronian Supergroup, Ontario, $6,000.00.

Queen's University

Dalrymple, R.W.
Study of the sedimentology of the Cambro-Ordovician sandstones of eastern Ontario, $15,100.00.
Hodgson, C.J.
Study of the structure, lithology and gold mineralization along main breaks in the Timmins-Kirkland Lake area, $33,025.00.
Nichol, I.
Geochemical exploration for gold, $25,500.00.

University of Toronto

Evenson, N.M.
A study of petrogenesis of mineralized horizons in the Uchi Lake greenstones, $29,650.00.
Naldrett, A.J.
A study of the felsic contamination and genesis of the Sudbury ores in northeastern Ontario, $12,750.00.
Naldrett, A.J.
Petrologic, isotopic and paleomagnetic investigation of three areas of the Nipissing diabase, $15,350.00.
Schwerdtner, W.M.
Structural signature and tectonic history of deformed gold-bearing rocks in northwestern Ontario, $38,350.00.
Spooner, E.T.C.
A study to analyse the composition of the mineral veins, rock relationships, types of mineralization, metamorphic alteration and structural relationships found in rocks at former gold mines in the Timmins area, $19,500.00.
Wicks, F.J.
Mineralogy and geochemistry of the chrysotile asbestos deposits of Ontario, $29,450.00.
York, D.
Dating of Ontario's gold deposits, $32,350.00.

University of Waterloo

Dusseault, M.B.
Study of clay minerals in southwestern Ontario oil reserves, $12,800.00.

Farvolden, R.N.
Study of subsurface Quaternary stratigraphy using borehole geophysics, $11,800.00.
Fritz, P.
Geochemical and isotopic studies of the Salina Formation, $19,850.00.

University of Western Ontario

Fyfe, W.S.
Stratigraphy and geochemistry of Northern Ontario carbonaceous deposits: Onakawana lignites and James Bay peats, $34,300.00.
Young, G.
Stratigraphy, sedimentology and geochemistry of parts of the Gowganda and Lorrain formations, North Shore of Lake Huron, $19,630.00.

York University

Edwards, G.R.
The petrogenesis and metallogenesis of the Atikwa-Lawrence volcanic-plutonic terrain, $18,350.00.

Natural Sciences and Engineering Research Council Canada Strategic Grants 1984-85/Subventions thématiques données par le Conseil de recherches en sciences naturelles et en génie du Canada 1984-85

BRITISH COLUMBIA

University of British Columbia

Russell, R.D. (Geophysics and Astronomy), Watanabe, T. (Geophysics and Astronomy)
Application of theory of geophysical measurements to the development of field instrumentation, with emphasis on information theory approaches, $54,600.00.

ALBERTA

University of Alberta

Muehlenbachs, K. (Geology), Nesbitt, B.E. (Geology)
An integrated study of precious and base metal mobilization in hydrothermally altered oceanic crust, $69,444.00.

MANITOBA

University of Manitoba - University of Alberta

Hsu, T.R. (Mechanical Engineering), D.K. Sinha, J.D. Scott
Permeability enhancement of oil sands by effective in-situ fracturing, $131,758.00.

ONTARIO

McMaster University

Walker, R.G. (Geology)
Reservoir geometry and prediction of shallow marine sandstones, Alberta, $57,330.00.

University of Toronto - University of British Columbia

Scott, S.D. (Geology), Barrett, T.J. (Geology), Chase, R.L. (Geophysics and Astronomy)
Young seamounts of the northeast Pacific Ocean, $134,772.00.
West, G.F. (Physics)
Seismic tomography, $62,400.00.

University of Waterloo

Cherry, J.A., Barker, J.F., Dusseault, M.B., Frape, S.K., Frind, E.O., Fritz, P., Gillham, R.W., Reardon, E.J. (Earth Sciences)
Hydrogeologic properties and contaminant mobility in fractured clayey deposits, $[illegible]40,000.00.
Fritz, P., Barker, J.F., Frape, S.K., Reardon, E.J., Mayfield, C. (Earth Sciences)
Occurrence and genesis of methane in the Canadian Shield, $35,160.00.

University of Western Ontario

Kerrich, R. (Geology), Hodder, R.W. (Geology)
Hydrothermal aluminous minerals: a guide in ore deposit exploration, $50,000.00.

QUÉBEC

Université du Québec à Chicoutimi - INRS - Université Laval - Université du Québec à Montréal

Dimroth, E., Archambault, G., Carignan, J., Chown, E.H.M., Guha, J. (Sciences de la terre) – Héroux, Y., Schrijver, K. – Rocheleau, M. (Géologie et Minéralogie) – Goulet, N. (Géologie)
Modélisation des évolutions géologiques et métallogéniques de la ceinture Abitibi, $74,200.00.

NOVA SCOTIA

Dalhousie University - Atlantic Geoscience Centre - Geomarine Associates Ltd. - Geological Survey of Canada - Newfoundland Dept. Mines and Energy

Beaumont, C. (Oceanography), Keen, C.
The development and thermal histories of continental margin sedimentary basins, $71,580.00.
Boyd, P. (Geology), Amos, C.L., Ruffman, A.
Models for coastal and continental shelf sedimentation from Sable Island Bank, $50,900.00
Hall, J.M. (Centre for Marine Geology)
A comparison of the effect on physical properties of short duration and prolonged sea water drawdown on Troodos type oceanic crust, $38,182.00.
Huntley, D.A. (Oceanography), Bowen, A.J. (Oceanography)
The movement of water and sediment near the sea bed, $54,000.00.
Louden, K.E. (Oceanography)
Heat flow study of eastern Canadian margins, $55,788.00.
Ryall, P.J.C., Hall, J.M., Zentilli, M. (Geology), Franklin, J.M.
Investigations of mid-ocean ridges and polymetallic sulfide deposits using an electric rock core drill, $124,300.00.

NEWFOUNDLAND

Memorial University of Newfoundland

Gale, B.J., Fryer, B.J., Macko, S.A., Strong, D.F. (Earth Sciences)
Groundwater flow systems in fractured crystalline rocks – application to mineral exploration and toxic waste disposal, $130,900.00.
Hiscott, R.N., Wright, J.A., Miller, H.G. (Earth Sciences), Dean, P.L.
Fossil fuel potential of Carboniferous pull-apart basins, Newfoundland and Gulf of St. Lawrence, $118,529.00.

Natural Sciences and Engineering Research Council Canada Earth Science Operating Grants 1984-85/Conseil de recherches en sciences naturelles et en génie Canada sciences de la terre subventions pour dépenses courantes 1984-85.

Achab,A. INRS-Géoress. Québec - INRS	Chitinozoaires de l'Ordovicien et du Silurien inférieur de Québec	Anderson,M.M. Biology Memorial	Contributions to palaeontology and stratigraphy, mainly Newfoundland
Adamowski,K. Civil Engineering Ottawa	Stochastic modelling of the hydrologic cycle	Armstrong,R.L. Geological Sciences British Columbia	Cordilleran geochronometry, radiogenic isotopes, and petrology
Aldridge,K.D. Earth & Atmos. Sc. York	1) Laboratory geophysical fluid dynamics 2) Inversion of time domain induced polarization data	Ayres,L.D. Earth Sciences Manitoba	Volcanological investigations of the Proterozoic Flin Flon volcano, Manitoba and Saskatchewan
Allard,M. Géographie Laval	Quaternaire et environnement côtier au sud de la Baie d'Ungava	Baadsgaard,H. Geology Alberta	Isotope geology of: Archean polymetamorphic rocks, pyroclastic beds, uranium deposits and salt beds
Anderson,G.M. Geology Toronto	Metasomatic and ore-forming solutions		

Bachinski, S.L.W. Geology New Brunswick	Nature, origin, and tectonic significance of minettes and related lamprophyres
Baer, A.J. Science Ottawa	1) Structural studies in the Grenville Province 2) Evolution of Proterozoic orogenes
Bailey, R.C. Physics/Geology Toronto	Electromagnetic sounding of the earth's crust and mantle
Bailey, W.G. Geography Simon Fraser	The role of atmospheric and surface factors in evaporation from cool surfaces
Barendregt, R.W. Geography Lethbridge	Paleomagnetic investigation of quaternary deposits in the Western Canadian Prairies and the Western Canadian Arctic
Barker, J.F. Earth Sciences Waterloo	Aspects of organic and bio-geochemistry in the groundwater environment
Barnes, C.R. Earth Sciences Memorial	Conodont taxonomy, biostratigraphy, paleoecology, and biogeography
Barr, S.M. Geology Acadia	Petrology, petrogenesis, and economic aspects of igneous rocks from Nova Scotia, New Brunswick, and Thailand
Bayliss, P. Geology & Geophys. Calgary	Applied crystallographic-mineralogy
Beales, F.W. Geology Toronto	Stratigraphy and stratabound mineral deposits
Beaumont, C. Oceanography Dalhousie	Earth rheology and geodynamics
Beck, A.E. Geophysics Western Ontario	Geothermal problems, pure and applied
Bell, K. Geology Carleton	Isotope geochemistry of carbonatites and the sub-continental upper mantle
Bello, R.L. Geography York	Experimental evaluation of actual evapotranspiration
Beswick, A.E. Geology Laurentian	Geochemical characteristics of Precambrian volcanism
Binda, P.L. Geology Regina	1) Stratiform copper occurrences of the Belt in Alberta and British Columbia 2) Depositional environment of the Battle Formation in Saskatchewan
Blenkinsop, J. Geology Carleton	Isotope geochemistry of kimberlites and their xenoliths
Bonn, F.J. Géographie Sherbrooke	Télédétection des propriétés thermiques de la surface de la terre
Borradaile, G.J. Geology Lakehead	Structural and metamorphic geology with emphasis on Archean rocks of NW Ontario
Bouchard, M.A. Géologie Montréal	Etude de la dispersion glaciaire - partie centrale du Québec
Bourque, P. Géologie Laval	Analyse paléo-environnementale des ensembles à carbonates du Siluro-Dévonien du Bassin de Gaspésie
Bovis, M.J. Geography British Columbia	Slope movement in southwest British Columbia
Bowen, A.J. Oceanography Dalhousie	Dynamics of waves, currents and sediments
Boyd, R. Geology Dalhousie	Coastal sedimentation models
Brand, U. Geological Sciences Brock	Carbonate diagenesis and metals and hydrocarbon exploration geochemistry
Brookfield, M.E. Land Resource Sc Guelph	Studies of recent and ancient desert deposits
Brooks, C. Geology Montréal	Isotopic and chemical studies of early crustal processes in the Precambrian Shield of Canada
Brown, A.C. Génie minéral Ecole Polytechnique	Etude métallogénique des gisements stratiformes de métaux non-ferreux
Brown, R.L. Geology Carleton	Structural and tectonic investigations in the Canadian Cordillera
Bryan, R.B. Geography Toronto	Rill initiation, gully development and drainage basin processes in semi-arid environments
Burden, E.T. Earth Sciences Memorial	Mesozoic and Cenozoic palynology of the North Atlantic borderlands
Burling, R.W. Oceanography British Columbia	Numerical simulations of circulations in Burrard Inlet and Indian Arm
Bustin, R.M. Geological Sciences British Columbia	Structure, sedimentology, and petrology of coal measures in Western and Arctic Canada
Calvert, S.E. Oceanography British Columbia	Geochemistry of recent marine sediments
Cameron, B.W. Geology Acadia	Evolution, paleoecology and depth distribution of fossil marine microbial endoliths

Cameron, E.M. Geology Ottawa	Isotopic stratigraphy of precambrian mineralized basins
Campbell, F.A. Geology & Geophys. Calgary	Geochemistry, mineralogy and isotope studies of rocks and ores
Campbell, I.A. Geography Alberta	Runoff, sediment yields and partial area contributions in badlands
Campbell, I.H. Earth/Planet. Sci. Toronto	Layered intrusions and their ore deposits
Cannon, W.H. Earth & Atmos. Sc. York	Applications of VLBI to geodynamics and geodesy-VLBI systems development
Carmichael, C.M. Geophysics Western Ontario	Geomagnetism
Carmichael, D.M. Geological Sciences Queen's	Metamorphic studies in Canada
Carroll, R.L. Redpath Museum McGill	Evolution and functional anatomy of Paleozoic and Early Mesozoic reptiles
Carson, M.A. Geography McGill	Behaviour of gravel - bed stream channels
Cerny, P. Earth Sciences Manitoba	Mineralogy, petrology, and genesis of granitic pegmatites
Chao, G.Y. Geology Carleton	1) Phase relations in the condensed systems Pd-Bi-Sb, Pd-Bi-Te, Pt-Bi-Sb, and Pt-Bi-Te 2) Mineralogy of the nepheline syenite, Mont St-Hilaire, Québec
Charlesworth, H.A.K. Geology Alberta	Structural study of coal-bearing and adjacent strata, Rocky Mountain Foothills, central Alberta
Chatterton, B.D.E. Geology Alberta	Taxonomic, paleoecologic, biostratigraphic and biogeographic studies of paleozoic trilobite and conodont faunas of Canada
Cherry, J.A. Earth Sciences Waterloo	1) Groundwater origin, age and diffusion effects in thick clayey deposits 2) Contaminant plume development in unconfined sand aquifers
Chesworth, W. Land Resource Sc Guelph	Geochemistry of soil-forming processes
Church, M.A. Geography British Columbia	Studies of hydraulics and sedimentation in alluvial rivers
Churcher, C.S. Zoology Toronto	Quaternary mammalian faunas, especially of Canada and Africa
Clark, A.H. Geological Sciences Queen's	Origin and delimitation of metallogenetic provinces and domains at convergent lithosphere plate boundaries
Clark, G.S. Earth Sciences Manitoba	Rubidium-strontium geochronology of Archean orthogneiss and middle Proterozoic plutonism, Churchill Province, northern Manitoba
Clarke, D.B. Geology Dalhousie	Petrogenesis of igneous rocks: 1) Peraluminous granites 2) Kimberlites and K-sulphides 3) Basic volcanic rocks
Clarke, G.K.C. Geophys./Astron. British Columbia	Glaciology: field study, theory and instrumentation
Clarke, W.B. Physics McMaster	Investigations of isotope patterns in nature
Clowes, R.M. Geophys./Astron. British Columbia	Reflection/refraction seismology on land and at sea for crustal/upper mantle investigations
Cogley, J.G. Geography Trent	Continental palaeogeomorphology and palaeoclimatology
Cogulu, E. Géologie Ottawa	L'étude pétro-chimique du gîte nickelifère des Grands Lacs - Thunder Bay, Ontario
Collerson, K.D. Geology Regina	Isotopic constraints on crustal evolution in the Canadian shield
Cook, F.A. Geology & Geophys. Calgary	Seismic reflection profiling in the Canadian Cordillera
Cooke, R.C. Oceanography Dalhousie	Reactions involving carbon in the marine environment
Copper, P. Geology Laurentian	Evolution and survival strategies of Ordovician to Devonian spire-bearing brachiopods: Ecological succession and mass extinction events in reef/carbonate ecosystems
Crocket, J.H. Geology McMaster	Applications of geochemistry to mineral deposit genesis
Crossley, D.J. Mining/Metal. Eng. McGill	Physics of the earth's interior and inverse methods in applied geophysics
Cruden, D.M. Geology Alberta	Stability of natural slopes in rock
Cumming, G.L. Physics Alberta	Systematics of Pb isotopic variations in ores and rocks - Crustal seismic studies
Curran, J.H. Civil Engineering Toronto	Constitutive equations for porous geologic materials
Dalrymple, R.W. Geological Sciences Queen's	Comparative sedimentology of macrotidal estuaries
D'Anglejan, B.F. Inst. Oceanography McGill	Studies of particulate suspended matter transport and transformations in the upper St. Lawrence estuary

David,M.
Génie minéral
Ecole Polytechnique
Développements géostatistiques pour l'inventaire et l'exploitation optimum des réserves

David,P.P.
Geology
Montréal
Study of eolian deposits in Canada

Davidson-Arnott,R.G.D.
Geography
Guelph
Beach and nearshore processes - erosion and sedimentation

Davis,A.M.
Geography
Toronto
Treelines in northern and southeastern Newfoundland

Deutsch,E.R.
Physics
Memorial
Rock magnetism and geological structure in the Newfoundland region

Dickinson,W.T.
Engineering
Guelph
Changes in hydrologic regime

Dimroth,E.
Sc. appliquées
Québec-Chicoutimi
1) Volcanologie physique et sédimentologie d'une ceinture volcano-sédimentaire Archéenne 2) Evolution magmato-tectonique de la Province Grenville au Saguenay-Lac-St-Jean

Dionne,J.
Géographie
Laval
Evolution des rives du Saint-Laurent (érosion-sédimentation)

Dixon,J.M.
Geological Sciences
Queen's
Centrifuge model and field studies in tectonics

Dixon,O.A.
Geology
Ottawa
Ordovician-Devonian invertebrate fossils and sedimentary facies

Doig,R.
Geological Sciences
McGill
Geological applications of isotopic analyses, seismic hazard

Donaldson,J.A.
Geology
Carleton
Comparative studies of Precambrian sedimentary rocks

Donnay,G.
Geological Sciences
McGill
Relation of physical and chemical properties to crystal structure

Dosso,H.W.
Physics
Victoria
Geomagnetic variations and electromagnetic modelling

Dostal,J.
Geology
Saint Mary's
Geochemistry and petrogenesis of some igneous rocks

Drake,J.J.
Geography
McMaster
Long term significance and short term variability of hydrologic process rates

Drapeau,G.
INRS-Océanolog.
Québec - INRS
Modélisation du transport des sédiments de fond dans la zone côtière basée sur des mesures "in situ"

Dreimanis,A.
Geology
Western Ontario
Origin of glacigenic deposits and stratigraphy of last glaciation in south eastern Canada

Dubois,J.M.M.
Géographie
Sherbrooke
Télédétection de l'évolution littorale et étude de la formation de flèches de plateforme rocheuse à l'île d'Anticosti

Duckworth,K.
Geology & Geophys.
Calgary
A study of the effect of low temperature (0 degrees C to -40 degrees C) on the electrical properties of rocks containing sulphide mineralization

Dunlop,D.J.
Physics
Toronto
Rock magnetism and paleomagnetism of continental and submarine rocks and synthetic analogs

Dusseault,M.B.
Earth Sciences
Waterloo
Geomechanics of in situ processes

Edgar,A.D.
Geology
Western Ontario
Geochemistry and petrology of igneous rocks with particular reference to the mantle

Edmund,A.G.
Geology
Toronto
Osteology, stratigraphic relationships and systematic revision of giant armadillos, ground sloths and other Pleistocene vertebrates

Edwards,G.R.
Earth & Atmos. Sc.
York
The geochemistry and evolution of an Archean volcanic-plutonic terrane, Wabigoon subprovince, Ontario

Edwards,R.N.
Physics
Toronto
Electromagnetic exploration at sea with controlled sources

Elias,R.J.
Earth Sciences
Manitoba
Ordovician solitary rugose corals of North America

Ellis,R.M.
Geophys./Astron.
British Columbia
Earthquake studies and refraction seismology

Elrick,D.E.
Land Resource Sc
Guelph
Transport phenomena in natural porous media

El-Sabh,M.
Oceanography
Québec-Rimouski
Circulation dynamics and mixing processes in estuaries

Emery,W.J.
Oceanography
British Columbia
Short term variability of wind and sea surface temperature patterns as inferred from geostationary satellite data

England,J.
Geography
Alberta
Quaternary glaciation, glacio-isostasy and paleoclimatic change, Northern Ellesmere Island

Evans,L.J.
Land Resource Sc
Guelph
Geochemistry of podzolic soil solutions

Evans,M.E.
Physics
Alberta
Quaternary paleomagnetic and archeomagnetic investigations

Evans,P.D.
Environmental Stud.
Trent
A study of major cation - trace metal interactions in lake sediments

Evensen,N.M.
Geology
Toronto
Analysis and modeling of isotopic variations in geologic systems

Fahey, B.D. Geography Guelph	Physical weathering mechanisms and weathering regimes in cold climates	Frind, E.O. Earth Sciences Waterloo	Mathematical modelling of flow and transport in hydrogeologic systems
Fahraeus, L.E. Earth Sciences Memorial	Conodontophorid paleobiology, histomorphology of conodonts and thelodont scales, and Lower Paleozoic chrono-and biostratigraphy	Fritz, P. Earth Sciences Waterloo	Isotopic hydrology and isotope geochemistry, paleohydrology and paleoenvironments
Farquhar, R.M. Physics Toronto	Lead isotope ratio variations	Fryer, B.J. Earth Sciences Memorial	The application of elemental and isotopic geochemistry to studying continental crustal processes and their associated mineral deposits
Farrar, E. Geological Sciences Queen's	Plate tectonic evolution of the Pacific Ocean basin and its margins - KAr geochronology and paleomagnetism	Fyfe, W.S. Geology Western Ontario	Chemical transport processes in geological fluids
Farvolden, R.N. Earth Sciences Waterloo	Groundwater flow in stratified aquifer under pumping stress	Fyson, W.K. Geology Ottawa	Structural patterns in metamorphic rocks
Fawcett, J.J. Geology Toronto	Experimental and field based studies in igneous and metamorphic petrology	Gagnon, M.J. Sci. fondamentales Québec-Chicoutimi	Rôle des résidus ligneux dans le transport des ions métalliques
Ferguson, R.B. Earth Sciences Manitoba	Crystal-chemical and petrogenetic studies of the rock-forming feldspars and other minerals	Gale, J.E. Earth Sciences Memorial	Factors controlling the movement of fluids through fractured argillaceous and crystalline rocks
Filion, L. Géographie Laval	Dynamique holocène des systèmes éoliens du Québec	Gardner, J.S. Geography Waterloo	Contemporary and recent sediment transfers in a small mountain basin
Finn, W.D. Soil Dynamics British Columbia	Behaviour of ground and structures under wave and earthquake loading, moving boundary problems, pollution dispersal	Garland, G.D. Physics Toronto	Thermal and electrical properties of the earth
Fleet, M.E.L. Geology Western Ontario	Crystal chemical and geochemical studies on earth materials	Garrett, C.J.R. Oceanography Dalhousie	Physical oceanography
Ford, D.C. Geography McMaster	1) Groundwater flow and cavern genesis in soluble rocks 2) Quaternary dating & palaeothermometry of calcite speleothem 3) Karst studies in Canada	Gauthier, M. Sciences de la terre Québec-Montréal	Gîtologie et métallogénie des métaux usuels au Québec
Fowler, A.D. Sc. appliquées Québec-Chicoutimi	Geochemistry of archean shales, Chibougamau area, Québec	Gelinas, L. Géologie Montréal	Géochimie et pétrogénèse des empilements volcaniques de l'Archéen en relation avec les gisements de sulfures massifs
Fox, R.C. Geology/Zoology Alberta	Late Cretaceous and Early Tertiary tetrapods from western Canada	Geurts, M.A. Géographie Ottawa	Palynostratigraphie et variations climatiques tardiglaciaires et postglaciaires
Francis, D.M. Geological Sciences McGill	Origin and evolution of basic magmas in the upper mantle	Ghent, E.D. Geology & Geophys. Calgary	Geochemical and petrologic study of metamorphism and diagenesis
Frape, S.K. Earth Sciences Waterloo	Origin and evolution of saline groundwaters and associated gases within the Canadian Shield	Gibling, M.R. Geology Dalhousie	Continental deposits in carboniferous basins of Atlantic Canada
Fredlund, D.G. Civil Engineering Saskatchewan	Engineering behavior of expansive soils	Gibson, I.L. Earth Sciences Waterloo	Petrological and ore-forming processes in extensional regimes
Freeze, R.A. Geological Sciences British Columbia	Hydrogeologic conditions and economic constraints in engineering design	Gilbert, R. Geography Queen's	Sedimentary processes in Arctic fiords
French, H.M. Geology/Geography Ottawa	Geomorphic and permafrost studies, Banks Island and northern interior Yukon	Gillham, R.W. Earth Sciences Waterloo	Contaminant transport in layered media

Gittins,J. Geology Toronto	Petrogenesis of alkalic rocks and carbonatites, related ores and the underlying mantle
Godwin,C.I. Geological Sciences British Columbia	Application of galena and rock lead isotope analyses to metallogeny of the Canadian Cordillera
Goodchild,M.F. Geography Western Ontario	Generalization and error in cartography and geographical data processing
Goodwin,A.M. Geology Toronto	Archean volcanic petrogenesis and early crustal growth
Gorton,M.P. Geology Toronto	Geochemical study of rocks from East Greenland
Gough,D.I. Physics Alberta	Magnetometer array studies and paleomagnetism
Graham,D.S. Geography Western Ontario	Study of fluvial morphology of tidal rivers
Gratton,Y. Océanographie Québec-Rimouski	Low-frequency motions over strong topography
Gravenor,C.P. Geology Windsor	Pleistocene and pre-pleistocene glaciomarine sedimentation
Gray,J. Physics Alberta	Stable isotope studies of tree rings, peat and cave deposits to determine past climate in Canada
Gray,J.T. Geography Montréal	Permafrost studies & geothermal modelling in Northern Quebec & Gaspésie
Greenhouse,J.P. Earth Sciences Waterloo	Geophysical mapping of contaminant plumes
Greenwood,B. Geology/Geography Toronto	Coastal hydrodynamics and sedimentation
Greenwood,H.J. Geological Sciences British Columbia	Geolgical phase equilibrium studies
Grill,E.V. Oceanography British Columbia	The geochemistry of trace heavy metals in marine waters and sediments
Groenevelt,P.H. Land Resource Sc Guelph	Physical properties of soils under intensive cultivation
Grundy,H.D. Geology McMaster	Mineralogy of the framework silicates
Guha,J. Sc. appliquées Québec-Chicoutimi	Rôle des fluides mobilisateurs dans les gîtes filoniens et porphyres Archéens
Gwyn,Q.H.J. Géographie Sherbrooke	Stratigraphie et chronologie quaternaires, golfe du Saint-Laurent, Québec
Hajnal,Z. Geological Sciences Saskatchewan	1) Seismic investigation of deep seated structures in Saskatchewan 2) Seismic investigation of Precambrian contact zones
Halden,N.M. Earth Sciences Manitoba	Geochemical and structural constraints on the evolution of the Churchill-Superior suture-zone in the vicinity of Split Lake, northern Manitoba
Hall,D.H. Earth Sciences Manitoba	Characteristics and development of crustal magnetic units in Manitoba and North-Western Ontario
Hall,J.M. Geology Dalhousie	The nature, structure and history of oceanic crust through drilling, geological and geophysical investigations
Hall,R.L. Geology & Geophys. Calgary	Jurassic ammonite faunas and biostratigraphy, western Canada
Halls,H.C. Geology Toronto	Paleomagnetism of Precambrian rocks
Hanes,J.A. Geological Sciences Queen's	Tectonothermal histories of greenstone belts and orogenic terranes by argon geochronology
Hare,F.K. Geography Toronto	Coupled modelling of climate, ocean and cryosphere
Harris,S.A. Geography Calgary	Alpine environmental studies
Hassan,I. Geology Toronto	Crystal chemistry of cancrinite and sodalite groups of minerals
Hattori,K. Geology Ottawa	Isotope study of Archean stratiform gold mineralization
Hay,A.E. Physics Memorial	Coastal and continental shelf oceanography
Hay,J.E. Geography British Columbia	Angular distribution of solar radiance over the sky hemisphere
Hayatsu,A. Geophysics Western Ontario	Study of initial argon by K-Ar isochron method
Hein,F.J. Geology Alberta	Facies models for deep-water slopes and shallow marine settings
Helmstaedt,H. Geological Sciences Queen's	Fabrics of metamorphic rocks, tectonic settings of mineral deposits, Kimberlites and their xenoliths
Hendershot,W.H. Geography Montréal	Soil investigation in Quebec

Hendershot,W.H. Ren. Resources McGill	Soil investigation in Québec
Heroux,Y. INRS-Géoress. Québec - INRS	Relations entre l'évolution thermique des kérogènes et la géologie structurale des Appalaches du Québec
Hesse,P.R. Geological Sciences McGill	Evolution of sedimentary basins on modern and ancient continental margins (diagenesis and low-grade metamorphism, tectonic setting)
Hickin,E.J. Geography Simon Fraser	Recent geomorphic control of sediment and river activity in the coastal mountains of British Columbia
Hicock,S.R. Geology Western Ontario	Glacial geology applied to mineral exploration in mountainous terrain
Hill,A.R. Geography York	Nitrate-nitrogen flux and cycling in rivers
Hillaire-Marcel,C. Sciences de la terre Québec-Montréal	Hydrologie, paléohydrologie isotopiques et paléoclimats continentaux
Hills,L.V. Geology & Geophys. Calgary	Quaternary and palynological - paleobotanical research
Hiscott,R.N. Earth Sciences Memorial	Sedimentation along ancient continental margins
Hodgson,C.J. Geology Queen's	Metallogeny of precious metal and lithophile element ore environments
Hodych,J.P. Earth Sciences Memorial	Effect of stress on magnetization of rock; paleomagnetism of appalachian Newfoundland
Hofmann,H.J. Geology Montréal	Precambrian and Lower Proterozoic paleontology and stratigraphy
Hogarth,D.D. Geology Ottawa	Petrogenesis of certain alkalic rocks and carbonatites
Holm,P.E. Geology Windsor	Thermotectonic discrimination and fabric analysis of Grenville metamorphic rocks
Hopkins,J.C. Geology & Geophys. Calgary	Petroleum geology of Mesozoic channel systems in the western interior
Howard,K.W.F. Physical Science Toronto	The application of hydrochemistry to the evaluation of hydrogeological conditions in superficial Quaternary deposits
Howarth,P.J. Geography Waterloo	Landsat and airborne digital data for studying the physical environment
Hron,F. Physics Alberta	Numerical modelling of seismic waves in complex geological structures
Huntley,D.A. Oceanography Dalhousie	Nearshore processes and boundary layer dynamics
Hutcheon,I.E. Geology & Geophys. Calgary	Rock-water-organic reaction sequences during diagenesis
Hynes,A.J. Geological Sciences McGill	Precambrian tectonic studies: Capricorn Orogen and James Bay
Ingram,R.G. Oceanography McGill	Effect of environmental changes on estuarine circulation and mixing
Jacobs,J.D. Geography Windsor	Paleoenvironments of the Frobisher Bay Area, Baffin Island, NWT
James,N.P. Earth Sciences Memorial	Facies anatomy and diagenetic evolution of early paleozoic carbonates
Jamieson,R.A. Geology Dalhousie	Metamorphic and tectonic studies in the northern Appalachians
Jensen,O.G. Mining/Metal. Eng. McGill	Geophysical analysis/Earth mechanics
Johnson,P.G. Geography Ottawa	Rock glacier formation by high magnitude low frequency processes
Jolly,W.T. Geological Sciences Brock	Igneous and metamorphic petrology of Huronian volcanic rocks, Ontario
Jones,B. Geology Alberta	Silurian-Devonian biostratigraphy of Western Canada and Arctic Canada
Jones,F.W. Physics Alberta	Electromagnetic induction, heat flow, and Earth tides and tilts
Jones,H.G. INRS - Eau Québec - INRS	Snow pack chemistry and melt water quality
Justice,J.H. Geology & Geophys. Calgary	Array processing in exploration seismology
Kaiser,P.K. Civil Engineering Alberta	Underground openings in soft, weak rock/mobile debris movements
Kanasewich,E.R. Physics Alberta	Geophysical investigations of the crust and upper mantle
Karakiewicz,B. INRS-Océanolog. Québec - INRS	Formation de systèmes de barres d'avant-côte sous l'action des houles progressives (Analyse du mécanisme théorique de formation et modélisation mathématique)
Karrow,P.F. Earth Sciences Waterloo	Quaternary stratigraphy and interglacial-interstadial environments

Kay,B.D. Land Resource Sc Guelph	Quantitative characterization of mass and heat transfer in freezing soils	Lambert,E.S.J. Geology Alberta	Radiogenic isotope studies in relation to crustal evolution
Kelly,C.A. Biology Winnipeg	Production of alkalinity by sulfate reduction in acidified lakes * with J.W.M. Rudd(Winnipeg)	Langley,R.B. Surveying Eng New Brunswick	Applications of radio interferometry in geodesy and geodynamics
Kennedy,D.J. Geological Sciences Brock	Ordovician conodont taxonomy and biostratigraphy	La Rochelle,P. Génie civil Laval	Propriétés fondamentales et comportement des argiles sensibles
Kenney,T.C. Civil Engineering Toronto	Compacted soil liners to control contaminant migration	Last,W.M. Earth Sciences Manitoba	Sedimentology and post-glacial history of saline lakes in Saskatchewan
Kerrich,R. Geology Western Ontario	Thermal and volume history of Archaean oceans with geochemical implications	Laurent,R. Géologie Laval	Géologie des complexes ophiolitiques des Appalaches du Québec
King,R.H. Geography Western Ontario	Soils as palaeoenvironmental indicators	Lauriol,B.M.E. Géographie Ottawa	Géologie du quaternaire de l'Ungava - Québec
Kissin,S.A. Geology Lakehead	Crystal chemistry and stabilities of sulphide minerals	Lawton,D.C. Geology & Geophys. Calgary	Development of the high resolution reflection seismic method
Kobluk,D.R. Earth Sciences Toronto	Cavities in Paleozoic reefs	Lebel,J. Océanographie Québec-Rimouski	Hydrogéochimie des estuaires
Kramer,J.R. Geology McMaster	Speciation and particulate interaction in natural waters	LeBlond,P.H. Oceanography British Columbia	Ocean waves and coastal oceanography
Krebes,E.S. Geology & Geophys. Calgary	Seismic waves in anelastic media	LeDrew,E.F. Geography Waterloo	Significance of local heat sources on the dynamic climatology of the Beauford Sea Region
Kretz,R. Geology Ottawa	Studies in the geochemical migration of elements	Lee,D.R. Earth Sciences Waterloo	Groundwater contaminant-flux to surface waters
Krogh,T.E. Geology Toronto	Research in geochronology: techniques, tests and applications to geological problems	Lefebvre,G. Génie civil Sherbrooke	Etude du comportement des argiles structurées
Krouse,H.R. Physics Calgary	Stable isotope fractionation studies	Legault,J.A. Earth Sciences Waterloo	Lower Paleozoic Palynostratigraphy of Canada
Kukalova-Peck,J. Geology Carleton	Morphology and evolution of paleozoic insects with reference to phylogeny of recent insects	Lenz,A.C. Geology Western Ontario	Ordovician to Devonian paleontology, biostratigraphy, paleoecology and stratigraphy of Northern and Arctic Canada
Kumarapeli,S. Geology Concordia	A metallogenic evaluation of the eastern extension of the Ottawa graben	Lerbekmo,J.F. Geology Alberta	Magnetostratigraphic, biostratigraphic, radiochemical and radiometric correlations in Cretaceous-Tertiary boundary sediments of the Cypress Hills area of SW Saskatchewan
Kyser,T.K. Geological Sciences Saskatchewan	Isotopic composition of the archaean mantle and ocean	Lespérance,P.J. Géologie Montréal	Biostratigraphie de l'Ordovicien Supérieur au Dévonien Inférieur du Québec
Lajoie,J. Géologie Montréal	1) Sédimentologie de séquences archéennes de la région de Rouyn-Noranda 2) Sédimentologie de séquences aphébiennes de la région des monts Otish 3) Etudes sédimentologiques de roches volcanoclastiques	Levinson,A.A. Geology & Geophys. Calgary	Exploration and environmental geochemistry
Lajtai,E.Z. Civil Engineering Manitoba	Fracture mechanisms in brittle rocks	Lewis,J.E. Geography McGill	Urban climate and land-cover: Surface energy exchange as a function of urban terrain characteristics

Lewkowicz, A.G. Geography Toronto	Measurement and simulation of permafrost degradation on slopes, Banks Island
Lewry, J.F. Geology Regina	Investigation of a possible lower Proterozoic fore-arc and collisional suture zone in northern Saskatchewan
Locat, J.E. Géologie Laval	Inter-relations entre la nature, les processus de formation les dépôts argileux et leur comportement mécanique
Logan, A. Geology New Brunswick	1) Interspecific aggression in Bermudian corals 2) Benthic hard substrate communities, Bay of Fundy
Long, B.F.N. INRS-Océanolog. Québec - INRS	Evolution sédimentologique et géomorphologique des estuaires de la côte nord du Golf du Saint-Laurent
Long, D.G.F. Geology Laurentian	Sedimentology and stratigraphy of Precambrian sequences
Longstaffe, F.J. Geology Alberta	Physico-chemical investigations of water-rock interaction in low-temperature environments
Louden, K.E. Oceanography Dalhousie	Earth structure
Luckman, B.H. Geography Western Ontario	Little ice age in Jasper National Park
Ludden, J.N. Geology Montréal	Geochemical studies of volcanic rocks of the Canadian Cordillera and recent basalt - pantellerite associations
Ludvigsen, R. Geology Toronto	Lower paleozoic trilobite biostratigraphy
Luk, S.H. Geography Toronto	Spatial variability of soil loss within small areas
Mackay, J.R. Geography British Columbia	Origin of permafrost and ground ice, Western Arctic Coast, Canada
Macko, S.A. Earth Sciences Memorial	Stable nitrogen isotope / chemical structure correlations in natural environments
MacLean, W.H. Geological Sciences McGill	Origin and mode of emplacement of Noranda-type massive sulfides at Matagami, Quebec
Macqueen, R.W. Earth Sciences Waterloo	Carbonate-hosted lead-zinc deposits; sedimentology/Organic geochemistry of selected Canadian Paleozoic suites
MacRae, N.D. Geology Western Ontario	Geochemistry of crustal fusion processes
Mahaney, W.C. Geography York	Quaternary geology of Mount Kenya, East Africa
Malpas, J.G. Earth Sciences Memorial	1) Magma chamber processes in the oceanic and continental lithospheres 2) Volcanic stratigraphy of the western Avalon Peninsula
Mamet, B.L. Géologie Montréal	Microfaciès carbonatés du Paléozoïque; microfaune et microflore
Mansinha, L. Geophysics Western Ontario	Earth dynamics/Exploration geophysics
Martignole, J. Géologie Montréal	Recherches pétrologiques et tectoniques dans la Province de Grenville
Martin, R.F. Geological Sciences McGill	Mineralogical and geochemical adjustments during rock-fluid interaction
Martini, I.P. Land Resource Sc Guelph	Quantitative studies of clastic sediments and rocks
Mason, R. Geological Sciences Queen's	The formation of ore deposits and crustal evolution in Canada and Southern Africa
Mathewes, R.W. Biolog. Sciences Simon Fraser	Late-quaternary vegetation and environmental changes in British Columbia
Mathews, W.H. Geological Sciences British Columbia	Cenozoic geology and geochronology, British Columbia
Mayer, L.A. Oceanography Dalhousie	High-resolution seismic stratigraphy
McCann, S.B. Geography McMaster	Morphology, sediments and dynamics of the shore zone
McCaughey, J.H. Geography Queen's	Energy and radiation balance studies
McGowan, C. Zoology Toronto	Phylogenetic relationships and functional anatomy within selected vertebrate groups, Recent and fossil
McGugan, A. Geology & Geophys. Calgary	1) Cretaceous micropaleontology 2) Pennsylvanian Permian stratigraphy 3) Recent foraminifera, West Coast, B.C.
McNutt, R.H. Geology McMaster	Radioactive isotope studies on Precambrian rocks
Medioli, F.S. Geology Dalhousie	The camoebian and foraminiferal distributions in Eastern Canada. Techniques of study and applications to studies of Holocene-Pleistocene paleoceanography and possibly biostratigraphy
Mereu, R.F. Geophysics Western Ontario	Deep and shallow seismic sounding research
Miall, A.D. Geology Toronto	Analysis of fluvial depositional systems

Michel, F.A. Geology Carleton	Isotope investigations of northern groundwaters, permafrost and related phenomena
Middleton, G.V. Geology McMaster	Field and experimental studies of clastic sediments
Miller, H.G. Earth Sciences Memorial	Geophysical investigations of Newfoundland geology - onshore and offshore
Mitchell, R.H. Geology Lakehead	Petrology and geochemistry of kimberlites and alkaline rocks
Moon, W. Earth Sciences Manitoba	Theoretical geodynamics and seismology research
Moore, J.M. Geology Carleton	Evolution of the grenvillian orogen in Eastern Ontario; Gore-Gamballa Geotraverse
Moore, R.M. Oceanography Dalhousie	Trace element scavenging studies
Moore, T.R. Geography McGill	The biogeochemistry of northern peatlands
Morgan, A.V. Earth Sciences Waterloo	Paleoecology, zoogeography and paleontology of quaternary insects * with M.A.Morgan (Waterloo)
Mossman, D.J. Geology Mount Allison	Petrology, mineralogy and geochemistry of ore deposits
Mothersill, J.S. Geology Lakehead	Paleomagnetic studies of late Quaternary lacustrine and marine sedimentary sequences
Mountjoy, E.W. Geological Sciences McGill	Carbonate sedimentation and diagenesis Paleozoic and Holocene reefs and platform margins
Mucci, A. Océanographie Québec-Rimouski	Quantitative influence of phosphate on calcite precipitation from seawater
Muecke, G.K. Geology Dalhousie	Geochemical and isotopic studies on metamorphic and igneous rocks, minerals and ores with special emphasis on the evolution of the meguma zone, N.S. and eastern Canadian continental margin
Muehlenbachs, K. Geology Alberta	Stable isotope exchange studies and their application to geological problems
Murphy, J.B. Geology St. F. Xavier	Geological history of the Western Antigonish Highlands, Nova Scotia
Murthy, G. Earth Sciences Memorial	Paleomagnetic and rock magnetic investigations of intrusive rocks from Labrador and from the island of Newfoundland and the study of implication of these results
Myrak, L.A. Mathematics British Columbia	Dynamical oceanography
Nakiboglu, S.M. Surveying Eng Calgary	Global sea level changes and contemporary crustal motion in Canada
Naldrett, A.J. Geology Toronto	Field and experimental studies of Pt and Ni-Cu deposits and their host rocks
Narbonne, G.M. Geological Sciences Queen's	Precambrian and lower paleozoic trace fossils and associated faunas of Eastern and Northern Canada
Nelson, S.J. Geology & Geophys. Calgary	Palaeozoic correlations
Nesbitt, R.E. Geology Alberta	Metamorphism and genesis of base metal sulfide deposits
Nesbitt, H.W. Geology Western Ontario	A comprehensive geochemical study of modern sedimentary basins
Nguyen, H.T. Génie civil Ecole Polytechnique	Convection naturelle en milieu poreux: application à l'énergie géothermique
Nichol, I. Geological Sciences Queen's	Geochemical exploration in Canada
Nicholls, J.W. Geology & Geophys. Calgary	H2O contents of magmas, petrology of nephelinites and hawaiites
Nickling, W.G. Geography Guelph	Effects of surface and textural variables on the threshold velocity of sand in air
Nisbet, E.G. Geological Sciences Saskatchewan	Studies in Archaean Geology
Nkemdirim, L.C. Geography Calgary	Calgary's urban heat island
Noble, J.P.A. Geology New Brunswick	Faunal and sedimentary history of the north Appalachian Orogen, Silurian-Devonian
Norris, G. Geology Toronto	Biostratigraphy of Mesozoic-Cenozoic miospores and dinoflagellates
Nyland, E. Physics Alberta	Geodynamics of plate margin interactions, seismic aspects
Occhietti, S. Géographie Québec-Montréal	Stratigraphie du Sangamonien - Wisconsinien, vallée et golfe du Saint-Laurent
Oke, T.R. Geography British Columbia	Climate modification by urbanization
Oldenburg, D.W. Geophys./Astron. British Columbia	Inversion and inference of geophysical data

Oldershaw,A.E.
Geology & Geophys.
Calgary
Natural and induced diagenesis in clastic and carbonate rocks

Osborn,G.D.
Geology & Geophys.
Calgary
1) Holocene/late pleistocene glacial chronology and tephrostratigraphy, Canadian cordillera 2) Dynamics of glacier bergschrunds

Ouellet,M.
INRS-Eau
Québec - INRS
Etablissement d'indices paléolimnologiques de polluants atmosphériques de longueportée

Page,P.
Sciences de la terre
Québec-Montréal
Géochimie des milieux glacio-aquatiques actuels et anciens de l'Est du Canada

Palmer,H.C.
Geophysics
Western Ontario
Paleomagnetism of late precambrian rock unit

Papezik,V.S.
Earth Sciences
Memorial
Geology and industrial mineral deposits of volcanic rocks in the Avalon Zone of the Appalachian orogenic belt

Pearce,G.W.
Geology
Toronto
Paleo-and rock magnetism of phanerozoic sedimentary deposits

Pearce,T.H.
Geology
Queen's
Comparative petrology and laser applications in the earth sciences

Pedersen,T.F.
Oceanography
British Columbia
Geochemistry of sediments and interstitial waters

Pe-Piper,G.
Geology
Saint Mary's
Geologic applications of mafic volcanic rock petrology and geochemistry

Perrault,G.
Génie minéral
Ecole Polytechnique
Métallogénie de l'or

Peterson,R.C.
Geology
Queen's
Composition and thermal control of cation ordering in spinels and other minerals

Pickerill,R.K.
Geology
New Brunswick
Palaeontology, ichnology, sedimentology and stratigraphy of eastern Canada and other selected sequences

Platt,R.G.
Geology
Lakehead
Petrogenetic studies of alkaline and related rocks

Pond,G.S.
Oceanography
British Columbia
Inlet and coastal circulation, dynamics and mixing

Price,A.G.
Geography
Toronto
Runoff production and water quality in small hydrologic systems

Pride,C.E.
Geology
Ottawa
Origin and fractionation history of granitoids

Quinlan,G.M.
Earth Sciences
Memorial
Thermo-mechanical models of Grand Banks sedimentary basins

Raeside,R.P.
Geology
Acadia
Metamorphism, deformation and plutonism, Cape Breton Highlands and Shelburne Metamorphic Complex, Nova Scotia

Ranalli,G.
Geology
Carleton
Role of rheology in lithosphere and mantle dynamics

Rankin,D.
Physics
Alberta
Crustal structure by the magnetotelluric method

Reardon,E.J.
Earth Sciences
Waterloo
Geochemical studies of rock/water interaction

Rees,C.E.
Geology & Chemistry
McMaster
Studies in isotope geochemistry

Reeves,M.J.
Geological Sciences
Saskatchewan
Characterization of fractured rock masses

Renaut,R.W.
Geological Sciences
Saskatchewan
Aspects of evaporite and carbonate sedimentology

Reynolds,P.H.
Physics/Geology
Dalhousie
Argon geochronology and stable isotope studies

Risk,M.J.
Geology
McMaster
1) Paleontology of Arctic bivalves 2) Animal-sediment relationships on Artic coastlines

Riva,J.
Geology
Laval
Taxonomy and biostratigraphy of Ordovician and Lower Silurian graptolites

Rivers,C.J.S.
Earth Sciences
Memorial
Metamorphic and structural studies in the Grenville, Slave and Churchill provinces

Robin,P.Y.F.
Geology
Toronto
Rock deformation: mechanisms, and effects on fluid flow, metamorphic reactions and melting

Robinson,P.T.
Geology
Dalhousie
Petrology, structure and origin of the ocean crust

Rocheleau,M.
Géologie
Laval
Stratigraphie, sédimentologie et métallogénie de l'or de quelques séquences archéennes dans la Ceinture d'Abitibi

Rochester,M.G.
Earth Sciences
Memorial
Theoretical global geophysics and planetary physics

Rodrigues,C.G.
Geology
Windsor
Paleoecologic and stratigraphic significance of foraminiferida, ostracoda, and macrofossils from deposits in the Western Champlain sea basin

Roeder,P.L.
Geological Sciences
Queen's
Experimental and microprobe study of chromite - basaltic liquid equilibrium

Rogerson,R.J.
Earth Sciences
Memorial
Glaciers in Northern Labrador

Ross,J.V.
Geology
British Columbia
Structure and mechanical properties of silicate minerals: structural studies in central B.C.

Rouse,G.E.
Botany
British Columbia
Paleogene paleoclimates in southern and interior B.C.

Rouse,W.R.
Geography
McMaster
Advective influence of Hudson Bay on terrestrial climate and permafrost

Rousell,D.H.
Geology
Laurentian
Geology and mineralization of the Wanapitei complex, Ontario

Roy,A.G.
Géographie
Montréal
La géométrie des confluences de cours d'eau

Roy,D.W.
Sciences de la terre
Québec-Chicoutimi
Analyse structurale du socle dans la région du Haut-Saguenay, Québec

Rucklidge,J.C.
Geology
Toronto
Geological studies using ultra-sensitive and x-ray analysis

Rudd,J.W.M.
Biology
Winnipeg
• Refer to C.A.Kelly(Winnipeg)

Ruddick,B.R.
Oceanography
Dalhousie
The role of interleaving in ocean mixing

Russell,L.S.
Geology
Toronto
The Cretaceous-Tertiary transition in Alberta; biostratigraphy of the Edmonton Group

Russell,R.D.
Geophys./Astron.
British Columbia
1) Isotopic investigations 2) Geophysical instrumentation

Rust,B.R.
Geology
Ottawa
Studies of alluvial sedimentation in relation to coal deposits

Rutherford,G.K.
Geography
Queen's
Pedogenesis of soils on basic igneous rocks

Rutter,N.W.
Geology
Alberta
Amino acid dating techniques

Ryall,P.J.C.
Geology
Dalhousie
Magnetic properties of sea floor basalts and structure of mid-ocean ridges

Sarjeant,W.A.S.
Geological Sciences
Saskatchewan
Fossil dinoflagellate cysts and acritarchs; morphology, evolutionary relationships and application in palaeoecology and biostratigraphy

Saunderson,H.C.
Geography
Wilfrid Laurier
Fluid velocity patterns and bedform migration, Nottawasaga River, Ontario

Scarfe,C.M.
Geology
Alberta
Physical and chemical properties of silicate melts of geological interest

Schenk,P.E.
Geology
Dalhousie
Carboniferous evaporite/carbonate sedimentology and stratigraphy, Nova Scotia

Schloessin,H.H.
Geophysics
Western Ontario
Physical properties (mechanical, thermal, electrical, optical, magnetic) of matter under conditions of planetary interiors

Schreier,H.
Soil Science
British Columbia
Spectral reflection measurements to predict chemical soil and terrain conditions

Schroeder,J.
Géographie
Québec-Montréal
Les sediments detritiques et chimiques des grottes de gaspesie

Schwarcz,H.P.
Geology
McMaster
Isotopic geochemistry

Schwartz,F.W.
Geology
Alberta
Exchange processes and mass transport in groundwater systems

Schwarz,E.J.
Mineral Eng.
Ecole Polytechnique
History of vertical movements of the Precambrian shield

Schwerdtner,W.M.
Geology
Toronto
Paleostrain analysis in the Canadian Shield

Scott,S.D.
Geology
Toronto
Geology and geochemistry of massive sulfide ores

Sequin,M.K.
Geology
Laval
Paleomagnetism of Quebec Archean greenstone, of Lower Paleozoic American and Baltic Vendian to Devonian rock sequences, and of Avalon microcontinent rock suites

Seroles,J.B.
Génie civil
Laval
Sédimentation intertidale et pouvoir auto-épurateur de l'estuaire du Saint-Laurent

Shaw,D.M.
Geology
McMaster
Geochemical studies of minerals and rocks

Shaw,J.
Geography
Queen's
Processes of glacial sedimentation and landformation

Shaykewich,C.F.
Soil Science
Manitoba
Assessment of soil erosion due to rainfall in Manitoba

Silverberg,N.
Oceanography
Québec-Rimouski
Sediment accumulation phenomena in the St. Lawrence Estuary

Simony,P.S.
Geology
Calgary
Tectonics of the Rossland arc

Sinclair,A.J.
Geological Sciences
British Columbia
Genetic models for gold deposits in the Canadian Cordillera

Singh,B.
Geography
Montréal
Energy balance studies as related to ground frost and evaporation in northern Quebec

Slawson,W.F. Geophys./Astron. British Columbia	Seismic and field investigation of the Beaufort-Cruickshank Fault, B.C.
Slaymaker,H.O. Geography British Columbia	Alpine and Arctic solute and sediment production, transport and yield
Smalley,I.J. Earth Sciences Waterloo	Mineralogy and properties of the sensitive clays of Eastern Canada
Smart,C.C. Geography Saskatchewan	Hydrologic tracing and computer simulation in the study of karst & glacial aquifers
Smith,D.G. Geography Calgary	Sedimentology and deposition style of the holocene and late pleistocene Athabasca, Peace and Slave River delta complex
Smith,D.G.W. Geology Alberta	Applications of the electron microprobe in mineralogy, petrology and meteoritics
Smith,J.L. Geological Sciences British Columbia	Transport processes in porous media
Smith,P.L. Geological Sciences British Columbia	Early jurassic biostratigraphy of North America
Smith,T.E. Geology Windsor	Tin mineralization and its association with peraluminous granitoid rocks in Nova Scotia and S.W. England
Smylie,D.E. Earth Sciences York	Dynamics of the earth
Sonnenfeld,P. Geology Windsor	Evaporite genesis
Spanos,T.J.T. Physics Alberta	The effect of the condensation of steam in heavy oil recovery processes
Spencer,E.J. Geology & Geophys. Calgary	Sedimentary and geochemical evolution of the Western Canada sedimentary basin
Spooner,E.T.C. Geology Toronto	The fluid inclusion gas species, and isotope geochemistry of hydrothermal ore deposits
Spratt,D.A. Geology & Geophys. Calgary	Geometry and deformation mechanics of thrust belts
Starkey,J. Geology Western Ontario	Textures and microstructures of deformed rocks and ores
Stauffer,M.R. Geological Sciences Saskatchewan	1) Structures in rocks 2) Exploration seismology in Precambrian Shield
Stearn,C.W. Geological Sciences McGill	Paleoecology of reefs
Stesky,R.M. Earth/Planet. Sci. Toronto	Geophysical and mechanical properties of fractured rock
Stimpson,B. Geological Eng. Manitoba	Predicting size distribution of ore fragments in underground mining
St-Julien,P. Géologie Laval	Relations géométriques entre les structures mésoscopiques, macroscopiques et la tectonique globale de la partie sud-ouest des Appalaches du Québec
Stockey,R.A. Botany Alberta	Tertiary vascular plants of Western Canada
St-Onge,D.A. Géographie Ottawa	Géologie du Quaternaire, Centre-nord du District du Mackenzie
Strangway,D.W. Geology Toronto	Magnetic and electrical studies of geological significance
Stringer,P. Geology New Brunswick	Relation of cleavage to folding in the Appalachian - Caledonian orogenic belt
Strong,D.F. Earth Sciences Memorial	Crustal and metallogenic studies of regions bordering the North Atlantic
St. Seymour,K.C. Geology Concordia	Volcanic stratigraphy of Greenstone Belts, James Bay area
St. Seymour,K.C. Geology Windsor	Volcanic stratigraphy of greenstone belts, James Bay area
Sundby,B. Oceanography Québec-Rimouski	Early diagenesis of transition metals in coastal marine sediments
Susak,N.J. Geology New Brunswick	Chemistry of hydrothermal solutions
Symons,D.T.A. Geology Windsor	Paleomagnetic studies: Cordillera and Phanerozoic Basins
Tassé,N. INRS-Géoress. Québec - INRS	Sédimentation et diagenèse en relation avec les minéralisations dans les basses-terres du Saint-Laurent
Taylor,C.H. Geography Trent	1) Hydrology of catchments in the Dorset Lakes region 2) Effects of urbanization on streamflow 3) Sediment yield from an agricultural drain
Teller,J.T. Earth Sciences Manitoba	History of the nipigon basin link between east and west
Terasmae,J. Geological Sciences Brock	Chronology and correlation of ice retreat and glacial lake phases in the northern Lake Ontario region
Thode,H.G. Chemistry McMaster	Mass spectrometric, nuclear and isotope chemistry studies

Torrance, J.K.
Geography
Carleton
Rheology of Leda clay--the influence of physical and geochemical variables

Trenhaile, A.S.
Geography
Windsor
The development of rock coasts

Trudel, P.
Génie minéral
Ecole Polytechnique
Distribution de l'or dans les roches de l'Abitibi, et applications à la métallogénie et à l'exploration minérale

Trzcienski, W.E.
Géologie
Montréal
Petrology and tectonics of the Canadian Appalachians

Turek, A.
Geology
Windsor
Geochronological studies of the archean

Turnock, A.C.
Earth Sciences
Manitoba
Synthesis, crystal chemistry, and phase relations of silicates and oxides

Ulrych, T.J.
Geophys./Astron.
British Columbia
Time series analysis and inverse theory

Van de Poll, H.W.
Geology
New Brunswick
The effects of physical diagenesis on sedimentary rocks and its interpretive value in facies studies

Vanicek, P.
Surveying Eng
New Brunswick
Geoid determination and variations of gravity

Van Wagoner, N.A.
Geology
Acadia
Pre-carboniferous physical volcanology and metallogenesis of the Avalon zone of Cape Breton Island and New Brunswick

Veizer, J.
Geology
Ottawa
Evolution of the terrestrial exogenic system

Vetter, W.J.
Eng./Applied Sci.
Memorial
Acoustic sensing of ocean sediments and exploration seismics

Von Bitter, P.H.
Geology
Toronto
Carboniferous and permian conodont biostratigraphy and palaeoecology, Arctic Canada

Vreeken, W.J.
Geography
Queen's
Quaternary soil-landscapes in southern Alberta and Saskatchewan

Waldron, J.W.F.
Geology
Saint Mary's
Sedimentology and structural evolution of Cambro-Ordovician continental margin sequences in the Canadian Appalachians

Walker, R.G.
Geology
McMaster
Development of clastic facies models

Wardlaw, N.C.
Geology & Geophys.
Calgary
Fluid flow in sedimentary rocks and oil and gas production

Warren, H.V.
Geological Sciences
British Columbia
An investigation of lichens in prospecting for silver, copper, lead and zinc

Watkinson, D.H.
Geology
Carleton
Genesis of metallic mineral deposits

Waylen, P.R.
Geography
Saskatchewan
Stochastic analysis of floods on western and central Canada

Weaver, J.T.
Physics
Victoria
Electromagnetic induction in the earth and oceans

Webster, I.T.
Physics
Memorial
Continental shelf dynamics

West, G.F.
Physics
Toronto
Applied, regional and tectono-geophysics

Westermann, G.E.G.
Geology
McMaster
Jurassic ammonites and cephalopod shells

Westgate, J.A.
Geology
Toronto
1) Stratigraphic applications of late Cenozoic volcanics in western North America
2) Quaternary geology and hydrogeology of the Newmarket region, Ontario

White, J.C.
Geology
New Brunswick
Electron microscopy studies of deformed rocks and minerals

Wicks, F.J.
Geology
Toronto
Studies of serpentine minerals

Williams, H.
Earth Sciences
Memorial
Anatomy of the Appalachian-Caledonides Orogen and offshore extensions

Williams, H.R.
Geological Sciences
Brock
Geological study of the Wabigoon-Quetico subprovince boundary

Williams, P.F.
Geology
New Brunswick
Deformation mechanisms and tectonic processes

Williams-Jones, A.E.
Geological Sciences
McGill
The metallogeny of Cu, Mo, W and Sn in Gaspé and New Brunswick

Wilson, M.V.H.
Zoology
Alberta
Late Cretaceous and early Tertiary fishes of western North America

Woo, M.K.
Geography
McMaster
Storage and runoff processes in permafrost and wetland terrains

Woods, D.V.
Geological Sciences
Queen's
Geomagnetic depth sounding studies in North America using magnetometer arrays

Woussen, G.
Sc. appliquées
Québec-Chicoutimi
Etude des roches Grenvilliennes dans le Saguenay - Lac St-Jean, Québec ("terrain central a granulite")

Wright, J.A.
Earth Sciences
Memorial
Geophysical crustal studies on land and offshore in Atlantic Canada

Wright, J.K.
Geography
McGill
Seasonal variations in moisture storage in discontinuous permafrost

Yedlin, M.
Geophys./Astron.
British Columbia
Exploration geophysics modeling

Yong, R.N.
Civ Eng/App Mech
McGill
Composition and control of fabric

York, D.
Physics
Toronto
Geochronology and isotope studies

Young, G.M.
Geology
Western Ontario
Study of some Proterozoic formations of the Great Lakes region

Zentilli, M.
Geology
Dalhousie
Metallogenic studies in Nova Scotia and the Central Andes

A

Achab, A., 141, 749, 1007, 1010
Adair, R.N., 1175
Adshead, J.D., 635, 1016
Agterberg, F.P., 246, 247
Ahmed, F.K., 309
Aitken, J.D., 1052, 1062
Akande, S.O., 581
Allard, M., 307
Alldrick, D.J., 1, 472
Amos, C.L., 967, 1017, 1018
Amyot, D., 40
Anderson, G.M., 600
Anderson, J.C., 114
Anderson, P.G., 506
Anderson, R.G., 2
Anderson, T.W., 411, 865
Andrews, A.J., 473, 488
Andriashek, L.D., 866, 867
Annor, A., 364
Antonuk, C., 1127
Archibald D.A., 205-212, 220, 222-224
Arjang, B., 374, 375
Armstrong, R.L., 227, 472, 1185
Arndt, N.T., 862
Arnott, W., 990
Ascoli, P., 1092
Ash, C., 82
Ash, C.R., 754
Aston, T.R.C., 365-367
Atkin, K.T.J., 1093
Atkinson, D., 148
Atkinson, L., 388
Atkinson, R., 1035
Aubertin, R., 447
Audet, H., 449

B

Baadsgaard, H., 181, 213-217
Bachinski, D.J., 474, 475, 795
Bachinski, S.W., 790-796, 838
Bail, P., 883
Bailes, A.H., 13
Bajc, A., 917
Baker, C.L., 157, 868
Baker, T.H.W., 355
Ball, N.A., 646
Ballantyne, S.B., 182
Bamber, E.W., 675
Banner, J.A., 397, 398
Banerjee, I., 980
Banres, S.J., 622
Baragar, W.R.A., 183, 797
Bardoux, M., 1113
Barlow, R.B., 267, 268
Barnes, C.R., 676-679, 697
Barnett, P.J., 869, 870, 882
Barr, S.M., 34, 798, 799, 854
Barrett, T.J., 399, 403, 600, 1053, 1054
Barrie, C.P., 476
Barss, M.S., 780
Basinger, J.F., 751-757, 778
Bates, J., 240
Batterson, M., 151, 871
Bauer, B., 406
Bazinet, R., 269-273, 277, 477, 551
Beakhouse, G.P., 35
Beaudet, H., 768
Beaudoin, A., 158
Beckett, M., 785
Belan, J., 573
Béland, J., 1134
Bélanger, J.R., 968
Bélanger, M., 49, 57, 484, 487, 500, 517, 526, 553, 830, 1153
Béliveau, M., 763
Belknap, D.F., 918
Bell, J.S., 582, 583
Bell, R.T., 478
Benn, K., 800
Berger, G.W., 218
Berger, P., 1143
Bergeron, M., 139, 184, 831, 1007
Bernard, D., 1150
Bernier, L., 667
Bertrand, R., 140, 141, 1007, 1010
Betournay, M., 373
Bhagavathula, R., 199
Bibicova, E., 214
Bigras, S.C., 114, 115
Binda, G., 383
Birkett, T.C., 601
Blackwell, B., 872
Blackwood, R.F., 18
Blake, W., Jr., 873
Blasco, S.M., 400, 874
Bobrowsky, P.T., 875
Boehner, R., 33
Bolton, T.E., 680, 1063
Bonham-Carter, G.F., 248
Bonn, F., 969-973
Bonnel, G., 200
Bornhold, D.B., 337, 1019
Bostock, H.H., 83, 1176
Bottomley, D., 390
Bouchard, K., 274
Boucher, M., 479
Bourgeois, J., 384
Bourget, A., 159
Bourque, Y., 520
Bower, M.E., 291
Bowering, S.A., 236
Bowman, W.S., 145
Boyce, D., 681
Boyd, R., 1020, 1021
Boyle, D.R., 160, 185
Boyle, R.W., 186
Bozozuk, M., 379
Brackmann, A.J., 636
Bradshaw, L., 341
Bragg, D., 876
Brand, U., 148, 187, 188
Bridgwater, D., 81
Bristow, Q., 327
Broome, J., 292
Brophy, J.A., 234, 545
Brown, A., 480, 483, 490, 571
Brown, H., 485
Brown, R.L., 1113, 1119, 1120
Bryndzia, L.T., 637, 782, 788
Buchan, K.L., 293, 294
Buck, S.E., 1148, 1149
Buckley, D.E., 401
Burden, E., 436
Burk, B.R., 507
Burke, K.B.S., 280, 312, 1126
Buteau, P., 448, 449
Byrne, M-L., 1035

C

Cabri, L.J., 638, 639
Cain, P., 366-368
Caldwell, W.G.E., 1093
Cameron, A.R., 426-430
Cameron, B., 580
Cameron, B.E.B., 682
Cameron, B.W., 683, 981
Cameron, E.M., 189
Cameron, G.H., 801
Campbell, F.H.A., 84, 1055
Campbell, I., 764
Campbell, J.C., 944
Campbell, R.B., 60, 1114
Campbell, R.M., 799
Carbotte, S., 402
Carmichael, D.M., 28, 208, 1116, 1162
Caron, A., 1128
Carswell, A., 288, 321
Carter, N.W., 104
Carter, T.R., 534
Catto, N.R., 877
Cecile, M.P., 1064
Chagnon, A., 640, 641, 1007, 1010
Chagnon, J-Y., 461
Chaisson, L., 503
Chakravorty, R.N., 116
Chan, C., 142
Chandler, F.W., 982, 983, 1056
Chandra, J., 280
Chaput, D., 387
Charbonneau, B.W., 281
Chartrand, F., 480
Chase, R.L., 403, 424, 1053
Chatterjee, A.K., 1141
Chatterton, B.D.E., 684
Chauvin, L., 878
Cheadle, S., 319
Cheel, R.J., 1022
Chen, T.T., 662, 663
Cherry, J.A., 391
Cherry, M.E., 481, 482, 488
Cheve, S.R., 483, 484, 500, 1006, 1008
Chew, H., 390
Chorlton, L.B., 485
Chouteau, M., 270, 274, 279, 282, 284
Christie, B., 508
Christie, K.W., 295
Christie, R.L., 85, 450, 1065
Christophel, D.C., 755
Chung, C.F., 236
Church, B.N., 161, 249, 486, 1177
Ciesielski, A., 86, 106, 107
Clague, J.J., 879
Clark, A.H., 209, 220, 221, 223, 226, 302, 522, 823, 824
Clark, M.E., 509
Clark, T., 487, 517
Cleal, C.J., 1091
Coakley, J.P., 1023
Coflin, K.C., 318
Colbourne, E., 408
Coleman, L.C., 861, 862
Colman-Sadd, S., 19
Colvine, A.C., 488, 529
Companion, S., 1001
Connelly, J.N., 1162
Conrod, D.M., 36
Cook, D.G., 984, 1158
Cooper, I.S., 1182
Copeland, M.J., 685
Copper, P., 686
Corfu, F., 219
Corlett, M.I., 825
Cousineau, P.A., 1151, 1152
Couture, B., 162
Craig, D., 390
Crawford, A.M., 369
Crouse, G.W., 513
Cruden, D.M., 338, 370
Cullen, R., 1129
Culshaw, N.G., 755
Cumming, B., 851
Currie, K.L., 802-804, 985
Currie, P.J., 995
Currie, R.G., 296
Cyr, J., 560

D

Dairymple, R.W., 417, 986, 1024, 1031, 1051
Danner, W.R., 3, 4
Darling, R., 162, 179, 271, 493, 498, 525, 526, 551, 573
Das, B., 371
David, M., 250, 251
Davidson, A., 805, 806
Davies, E.H., 758, 759
Davies, J.C., 489
Davis, D.W., 219
Dawson, F.M., 631
Dawson, K.M., 603
Dean, M.E., 990
Dean, P.L., 436, 451
deBastiani, P., 765
DeBroucker, G., 41, 1156
de Freitas, T., 687
Delaney, P.W., 20
Demant, A., 1185
Demchuk, T., 760
Demont, G., 240
Denton, A.W.S., 403
Desbiens, J., 311
Deschambault, C., 282
Desjardins, D., 42
Desjardins, M., 1007, 1010
Desrivières, J., 490
Desrochers, A., 1066
Devlin, J.F., 124, 125
Devlin, R., 387
Dewez, V., 761, 899
Diakow, L.J., 10, 346
Diamond, M.L., 122
Dickson, W.L., 20
Dietrich, J.R., 584
DiLabio, R.W., 491
Dilcher, D.L., 756
Dilliston, C., 322
Dimitrakopoulos, R., 252
Dineley, D.L., 730
Dion, C., 800
Dixon, J., 1094
Dixon, J.M., 26, 402, 1116, 1143, 1162-1164, 1171, 1174
Dixon, O.A., 688, 706, 714, 987, 1000, 1002, 1003
Dodds, C.J., 5
Doggett, M.D., 617
Doherty, W., 146, 147
Dorr, J.J., 986
D'Orsay, M., 1089
Douma, M., 1020
Doyle, C.D., 783
Dredge, L.A., 880, 881
Dreimanis, A., 882
Dressler, B., 105, 807
Dubois, J-M.M., 43, 108, 109, 117, 256, 257, 266, 969, 971-974
Dunbar, W.S., 237
Dunn, C.E., 147
Dunsmore, H.E., 492, 604
Dupré, J.S., 118
Dussault, C., 493
Dutrizac, J.E., 658
Dyck, A.S., 884-887
Dyck, A.V., 275, 276
Dyck, W., 190
Dyke, L., 126

E

Easton, R.A., 37, 38
Easton, R.M., 23, 219, 494
Eckstrand, O.R., 605
Eden, W.J., 379
Edlund, S.A., 762, 888
Edmund, A.G., 731-739
Edwards, T., 893
Edwards, W.A.D., 452-454
Egginton, P.A., 119, 120
Eisbacher, G.H., 372, 1057
Eley, B.E., 860
Elias, R.J., 689
Elliott, C., 1127
Ellis, C.E., 234
Ellis, J., 27
Ellwood, D.J., 191
El-Sabh, M., 973
Embry, A.F., 1095
Emory-Moore, M., 1029
Emslie, R.F., 808, 809
Ercit, T.S., 653
Ermanovics, I.F., 76
Evans, D.J.A., 938
Evans, S.G., 340
Evensen, N.M., 36, 199

F

Fahraeus, L.E., 678
Fahrig, W.F., 297, 298
Falls, R., 856
Farkas, A., 644
Farr, J.E., 495
Farrar, E., 205-212, 220, 221, 226, 302, 402, 522, 1164
Farvolden, R.N., 889
Fawcett, J.J., 811
Fenton, M.M., 867
Ferguson, R.B., 645, 646, 660
Finamore, P., 890
Finck, R.W., 891
Fisher, D.A., 384
Fitzgerald, G.R., 740
Flint, J.J., 892
Fogarosi, S., 131
Folinsbee, R.E., 214
Forbes, D.L., 258, 404, 1025
Ford, K.L., 283
Forster, D., 9
Fortescue, J.A.C., 121, 122, 868
Foscolos, A.E., 163, 585, 586
Fossey, K., 370
Fox, J.C., 259
Fralick, P.W., 1054
France, L., 221
Franklin, J., 341-347
Franklin, J.M., 606, 607
Fraser, J.A., 87, 842
Frederking, R., 381
Freeman, K., 846
French, V.A., 799
Friedrichsen, H., 399
Frisch, T., 88, 89
Frith, R.A., 90, 91
Fritz, P., 231, 893
Fritz, W.H., 709, 1067
Froese, E., 843, 844
Froggatt, F., 965
Frotten, G., 241
Frydecky, I.I., 313
Fryer, B., 389
Fuglem, M.O., 608

Fulton, R.J., 894, 895
Furey, D., 810
Fuss, D.M., 1189
Fuzesy, L.M., 858
Fyfe, W.S., 896
Fyson, W.K., 568, 1130, 1135, 1146

G

Gabrielse, H., 67, 68
Gadd, N.R., 348, 897
Gagne, R.M., 314
Gagnier, B-M., 978
Gagnon, Y.D., 845
Gait, R.I., 1013
Gale, J.E., 388, 389
Gandhi, S., 496
Gao, Ruixiang, 1140
Garcia, E., 823
Gareau, M., 164
Gasparrini, C., 622
Gaumond, A., 647
Gauthier, M., 479, 497
Gauthier, R.C., 932
Geddes, R.S., 898
Geiger, H.O., 307
Geldsetzer, H.H.J., 1068, 1069
Gendzwill, D.J., 1157
Genest, C., 123
Gerasimoff, M.D., 1115
Geurts, M-A., 761, 763-769, 899
Ghanen, Y., 284
Ghent, E.D., 846-848
Gibbins, W.A., 234
Gibson, D.W., 1096-1098
Gilbert, H.P., 14
Gilbert, M., 498
Giles, P.G., 33
Gill, R., 237
Gillespie-Wood, J., 241
Gillis, K., 833
Giovenazzo, D., 499
Girard, A., 500
Girault, M., 1178
Gittins, C.A., 785
Gittins, J., 784, 811, 812
Goble, R.J., 648
Godfrey, J.D., 64-66, 328
Godfrey-Smith, D.I., 230
Goff, S.P., 192
Gonzales, A., 1026
Good, D.J., 501
Goodarzi, F., 432, 433, 597
Goodfellow, W.D., 193, 194
Goodrich, L.E., 356, 380
Gordey, S.P., 112, 113
Gordon, T.M., 849, 850
Gorman, W.A., 126-126, 900
Gorton, M., 965
Gorton, M.P., 811, 812
Gosselin, C., 44, 640
Goulet, N., 1153
Gower, C., 77
Gradstein, F.M., 690-692
Graf, G.C., 987
Graham, B.W., 387
Grant, A.C., 588
Grant, D.R., 901-904
Grant, S.K., 990
Grasty, R.L., 285
Graves, A.C., 588
Greenhouse, J., 889
Greenwood, B., 405, 406, 1027
Grieve, D.A., 238, 1099
Groat, L.A., 651-653
Gross, G.A., 302, 609
Guay, F., 766
Guay, G., 767
Gupta, V.K., 308
Gwyn, Q.H.J.,43, 260, 969-971
Gwenge, M., 373

H

Hacquebard, P.A., 634
Halden, N.M., 143
Hale, W.E., 303, 610, 813
Hall, R., 511, 693
Hall, R.K., 1021
Halls, H.C., 299-301
Hamilton, J.N., 612
Hamilton, T.S., 313, 1179
Hanes, J.A., 222-225
Hanmer, S., 1131, 1144, 1162
Hann, B.J., 919
Hannington, M.D., 407
Harington, C.R., 740
Harper, C., 58
Harris, D.C., 649
Harrison, J.C., 1159
Harrison, R., 988, 1014
Harrison, S., 1093
Harrop, J., 572
Harry, D.G., 357
Hassan, H.H., 610
Hawthorne, F.C., 650-654
Hay, A.E., 400
Hayes, J.P., 936
Haynes, S.J., 611
Heaman, L.M., 139
Hearn, D.J., 318
Heather, K.B., 510
Heaton, J.P.W., 663
Hébert, Y., 455
Hedjran, K., 856
Hedley, D.G.F., 374
Heginbottom, J.A., 349, 358
Hein, F.J., 989, 990, 1028
Heinrich, S.M., 226
Helgason, J., 579
Helmstaedt, H., 24, 210, 511, 570, 1112, 1115, 1143, 1174
Henderson, C., 703
Henderson, J.B., 25, 92, 93
Henderson, J.R., 504, 1058, 1132
Herd, R.K., 15, 21
Héroux, Y., 141, 1007, 1010
Hervet, M., 45
Hétu, B., 260
Hickson, C.J., 1180
Hicock, S.R., 896, 905-907
Higgins, A.C., 694, 725
Hildebrand, R.S., 1133
Hill, J.D., 814
Hingston, R., 580
Hinsperger, S., 187
Hiscott, R.N., 436, 859, 991-993, 1029, 1030
Hocq, M., 46
Hodgson, C.J., 224, 505-511, 612, 625, 632, 1165
Hodgson, D.A., 908, 909
Hoeve, J., 227, 655, 656
Hoffman, P.F., 26, 1059, 1134
Hofmann, H.J., 709
Hogg, A., 811
Hollingshead, S., 126
Honig, C., 1021
Hoogendoorn, E.L., 183
Hoornweg, D., 342
Hope, T.L., 854
Hora, Z.D., 456, 457, 615, 910
Hornbrook, E.H.W., 165
Horsky, S.J., 180, 204
Houle, L., 389
Howie, R.D., 1070
Howse, A., 458
Howson, S., 27
Hoy, T., 512, 613
Huard, A., 543
Hubert, C., 498
Hudson, B., 454
Hughes, J.D., 435
Hughes, O.L., 328, 877, 911-913
Hughes, R., 989
Hunter, J.A., 316, 329
Huntley, D.J., 21, 228-230
Hurdle, E., 1135
Hyde, R.S., 430, 991

I

Imreh, L., 1181
Inch, I., 390
Irrinki, R.R., 17, 513
Irving, E., 211

J

Jackson, G.D., 94, 95, 1060
Jackson, H.R., 317, 409
Jackson, J., 136
Jackson, K.C., 300
Jackson, L.E., Jr., 127, 128, 914, 915
Jackson, R., 366
Jackson, R.E., 387
Jackson, V.A., 23, 24, 27
Jambor, J.L., 657, 658, 661
James, D.T., 28, 32
James, N.P., 679
Jamieson, H., 193, 659, 786
Jamieson, R.A., 34
Janke, L.C., 200
Jansa, L.F., 1032, 1100
Jarvis, I., 399
Jarzen, D.M., 769
Jefferson, C.W., 514
Jerzykiewicz, T., 437
Johns, G.W., 1182
Johnson, M.D., 589
Johnson, P.G., 261-264, 383
Johnston, D.I., 678
Johnston, G.H., 359, 360
Jolly, W.T., 851
Jonasson, I.R., 150, 166
Jong, W., 981
Josenhans, H.W., 410, 939
Journeay, J.M., 208, 1116
Jowett, C., 575

K

Kalkreuth, W.D., 438-441, 590
Kambampati, M.V., 813
Karrow, P.F., 231, 411, 695, 889, 916-921, 1023
Kaszychi, C.A., 922
Katsube, T.J., 330
Kazmarska, I., 921
Kean, B., 516
Kearvell, G., 517
Keen, C.E., 331
Keller, C.K., 391
Kennedy, D.J., 697
Keppie, J.D., 1161
Kerr, D., 994
Kerrich, R., 896
Kettles, I.M., 129
Kettles, K., 674
Kheang, L., 518
Kilby, W.E., 238, 239, 1101
Kilfoil, G., 309, 436
King, A.F., 131
King, L.H., 1166
King, M., 459
Kirby, F., 923
Kirkham, R.V., 519
Kish, L., 42, 50, 520, 541
Klassen, R.A., 521, 924-926
Klassen, R.W., 61
Knapp, C.J., 689
Knight, I., 681, 1071
Kobluk, D.R., 412, 413, 698
Kodybka, R.J., 263
Koerner, R.M., 384
Koke, K.R., 1104
Kolada, R.J., 353
Konrad, J-M., 350, 380
Kontak, D.J., 522
Koo, J., 442, 443
Korstgaard, J., 81
Kostaschuk, R.A., 1036
Koster, E.H., 995
Kramers, J.W., 996
Krawetz, M.T., 1037
Krebes, E.S., 318
Krentz, D.H., 268
Krogh, T.E., 219
Kucera, R.E., 265
Kurfurst, P.J., 361
Kwong, K.P., 460, 999
Kwong, Y.T.J., 523, 614, 615
Kyster, K., 861

L

Lacasse, D., 264
Lachambre, G., 1072
Lachance, G.R., 144
Lackey, T., 536
Lacroix, R., 524
Lacroix, S., 525, 526
LaFrance, B., 1127
Lagarec, D., 764, 767
Lambert, M.B., 815, 816
Lamothe, D., 45, 51, 829
Langenberg, C.W., 65, 66, 328, 1111
Langley, K., 384
Langridge, R.F., 302
Lapointe, D., 817
Laporte, P.J., 29, 527
Last, W., 1045
Lau, P., 343
Laurent, R., 800, 817, 818, 828
Lauzière, K., 52
Lavergne, G., 50
Law, K.T., 379
Lawton, D.C., 319
LeCheminant, A.N., 96, 97
Lee, D.J., 710
Leech, G.B., 1117
Legault, J.M., 270, 272
Leger, A., 1123
Legun, A., 6
Leibscher, H., 387
Lenz, A.C., 699, 700, 1073
Lerbekmo, J.F., 215, 303
Lessard, G., 257
Levson, V.M., 927
Lewis, C.F.M., 414, 415
Leyland, J.G., 954
Lichti-Federovich, S., 770
Ling Wong, 224
Liu, Y-H., 730
Liverman, D.G.E., 928
Lloyd, C.J., 900
Locat, J., 461
Loeffler, E.J., 730
Logan, A., 416
Logan, J., 528
Long, D.G.F., 529
Long, P.R., 1042
Longstaffe, F.J., 1028
Lopez-Martinez, M., 225
Lorek, E., 851
Losert, J., 997
Lugowski, J., 399, 600
Luternauer, J.L., 351, 1033, 1034
Lydon, J.W., 195, 530
Lyttle, N.A., 240-242

M

Maass, O., 417
Maathuis, H., 395, 945
Macdonald, A.J., 488, 531
Macdonald, A.S., 34, 798, 799
Macdonald, D.E., 462
MacDonald, M.A., 819
Macdonald, R., 110
MacDougall, C., 578
MacFarlane, D.B., 664
MacInnis, I.N., 580
MacIntyre, D.G., 533, 616
Mackenzie, B.W., 617, 618
Mackie, G.L., 695
Macko, S., 389
MacLaren, G., 9
MacLean, B., 419
Macnab, R.L., 286
Maerz, N., 344
Mahnic, P., 953
Mainwaring, P.R., 661
Malczak, J., 534
Malo, M., 47
Mannard, G., 55
Marais, J., 216
Marcotte, D., 250, 251
Marmont, S., 232, 488, 535
Marquis, R., 1154
Marsh, P., 131-133
Martel, A.T., 593, 594
Martineau, Y., 81
Martini, I.P., 460, 998, 999
Mason, R., 536, 537
Masoumzadeh, S., 370
Mathews, W.H., 233, 1180
Matsushita, P.N., 1035
Matthews, J.V., Jr., 701
Maurice, Y.T., 167, 168, 197, 619, 620
Mawer, C.K., 852, 853, 1125, 1142, 1167
Mayr, U., 1076
Mayrand, L., 277
McAllister, A.L., 1124
McAndrews, J.H., 737
McAtee, C., 935
McAuley, R.J., 689
McCabe, H.R., 1074, 1075
McCann, S.B., 1035-1037
McCarthy, F., 392
McClung, D.M., 382
McConachy, T.F., 418
McConnell, J.W., 151
McCracken, A.D., 702, 1073
McCutcheon, S.R., 627, 1183
McDonald, G., 738
McDougall, I., 215

McGaughey, J.W., 290
McGlynn, J.C., 13
McGregor, C.R., 660
McGregor, D.C., 771
McGugan, A., 703
McIntyre, D.J., 772
McLachlin, D., 345
McLaren, P., 1038
McMechan, M.E., 7
McMillan, N.J., 591, 592
McMillan, W.J., 1
McMullin, D.W., 797
McNeil, D.H., 704
McNeill, J.D., 268
Meanwell, S., 786
Mehegan, J., 833
Meijer-Drees, N.C., 1077
Melchin, M.J., 700, 705
Mellinger, M., 198
Mellvish, J., 665
Menzies, J., 385
Mercer, D., 408
Merrill, G.K., 726
Meyer, J.R., 451
Meznick, R., 537
Michael, P.J., 403
Michel, S.G., 538
Mihalynuk, M., 846
Mihychuk, M., 934
Mihychuk, M.A., 929
Miller, A.R., 621
Miller, B.B., 695
Miller, C.K., 539
Miller, H.G., 309, 310, 436
Miller, R., 540
Mirkovich, V.V., 352
Mittler, P.R., 405
Mitton, B., 475
Monger, J.W.H., 69
Moon, W., 288, 320-322, 333, 334
Moore, J.M., 1119
Moreton, C., 1124
Morin, G., 541
Morin, R., 48, 641
Morison, S.R., 989
Morrison, J.O., 187
Morrow, D.W., 30, 1078
Morton, R.D., 462
Mosher, D., 1030
Mossman, D.J., 169, 170, 741
Mott, R.J., 773
Mottl, M.J., 418
Mountjoy, E., 212
Mudie, P.J., 930
Muir, I.D., 1000
Mulja, T., 1189
Mumin, H., 171
Munro, I., 706
Mustard, J.F., 118
Mwenifumbo, C.J., 332
Myrow, P., 992

N

Naidu, H.G., 200
Nair, S., 1021
Naldrett, A.J., 36, 199, 476, 501, 515, 622, 783, 801
Nantel, S., 463
Napoli, M.G., 1145
Narbonne, G.M., 707-709, 1001
Nassichuk, W.W., 1079
Neuman, A.G., 742
Newman, J., 241
Nichols, B., 243
Nicholls, J., 820, 821
Nimpagaritse, G., 542
Nixon, G.T., 826, 1185
Noble, J.P.A., 710
Noel, N., 80
Norford, B.S., 1080
Norris, A.W., 711, 1081
Norris, D.K., 62
Norris, G., 779
North, B.R., 1093
Novakowski, K.S., 393, 394
Nowlan, G.S., 706, 709, 712
Nunn, G.A.G., 78-80
Nutman, A., 81

O

O'Brien, S.J., 22
O'Driscoll, C.F., 543, 623
Okulitch, A.V., 1137
Olson, D.G., 305
Ommanney, S., 974
Orchard, M.J., 713, 727
O'Reilly, G.A., 544
Osadetz, K.G., 395
Osborne, D., 709
Ottaway, T.L., 662
Overton, A., 323
Owen, R.B., 1043
Owen, V., 49
Ozoray, J., 856, 857

P

Packard, J.J., 1002
Padgham, W.A., 23, 27, 32, 234, 545, 1186
Pair, D., 920
Palmer, J.H.L., 354
Panteleyev, A., 10, 546, 561, 629
Parameswaran, V.R., 362
Parent, M., 883
Parkin, G.W., 907
Parkins, W.G., 714
Parnandi, M., 384
Patel, I.M., 1089
Patterson, R.J., 387
Pearce, G.W., 515
Pearce, T.H., 663, 822-827
Pease, R., 560
Peavey, S.T., 309, 436
Pedder, A.E.H., 1082
Pell, J., 624
Pelletier, B.R., 931
Pelletier, L., 828
Perrault, G., 158, 159, 172, 176, 518, 524, 542, 547, 556, 588, 647
Peter, J.M., 420
Peterson, R.C., 659, 664, 665
Petruk, W., 548, 549, 661
Phillips, B., 134
Phipps, M., 761
Picard, C., 829
Pickering, K.T., 993
Pillet, D., 830
Piper, D.J.W., 421, 422, 1030, 1039
Piroschco, D., 550, 625
Pitcher, D.H., 268
Plant, A.G., 666
Poey, J-L., 1003
Pohler, S., 679
Poley, D.F., 319
Polgari, M., 520
Ponsford, D., 242
Poole, J., 20
Pope, C., 710
Pouliot, G., 667, 831
Poulsen, K.H., 626
Poulton, T.P., 1102
Preto, V.A., 9
Price, L.L., 1103
Price, R.A., 8
Procyshyn, E., 1155
Prosh, E.C., 715
Provencher, L., 266
Prowse, T.D., 131
Pugh, D.C., 98
Purdy, D., 1004

Q

Quirt, D., 227, 655, 656

R

Raeside, R.P., 34, 854
Raicar, M., 596, 597
Rainville, S., 551
Ramik, R., 674
Rampton, V.N., 932
Rashid, M.A., 1040
Rashid, H., 134
Raudsepp, M., 652, 653, 668
Raven, K.G., 393, 394
Ravenhurst, C.E., 581
Ray, G.E., 70, 173, 552, 1118
Reardon, E.J., 135
Rees, C., 1119
Reesor, J.E., 70
Reid, I., 324, 325
Reilly, B., 611
Relf, C., 27, 32
Renault, R.W., 787, 1011, 1026, 1041-1043
Reynolds, P.H., 580, 581, 1189
Richard, S.H., 933, 934
Richard, T.A., 935
Richards, B.C., 1083
Richardson, R.J., 259
Ricketts, B.D., 444
Ricketts, M.J., 936
Riddihough, R.P., 402
Riley, J.L., 464
Riva, J., 716
Robb, G.A., 990
Robinson, P.T., 832, 833
Robson, J., 1084
Rochester, M.G., 335
Roddick, J.A., 7
Rodkin, O., 937
Roeder, P.L., 824
Roger, G., 553
Rogers, H.D., 834
Rogers, P.J., 174
Rogerson, R.J., 386, 938, 939
Rohn, M-L., 553
Romaniuk, A.S., 200
Rondot, J., 50
Roscoe, S.M., 554
Ross, L., 889
Rottenfusser, B.A., 1005
Rouillard, M., 1085
Rouleau, A., 393, 394
Rouse, G.E., 233
Rousell, D.H., 1145
Roy, C., 51
Roy, J., 302
Royer, A., 975
Rudkin, D.M., 717-719, 721
Ruitenberg, A.A., 627
Rukavina, N.A., 136-138
Russell, D.A., 743
Rutter, N.W., 877, 927, 940, 941
Ruzicka, V., 555
Ryan, B., 81
Ryan, R.J., 1089

S

Sabourin, R.G., 145
Sado, E.V., 890
Sandberg, G., 727
Sanderson, J., 599
Sanfaçon, R., 556
Sanford, B.V., 1086
Sangster, D.F., 557, 628, 1007
Savoie, A., 558
Sawatzky, P., 306
Sayed, M., 381
Scammell, R.J., 1120
Schaerer, P.A., 382
Schafer, C.T., 423, 1044
Schandl, E.S., 669
Schau, M., 99, 835, 855
Scheckler, S.E., 757
Schiarizza, P., 9
Schillereff, S., 389
Schledewitz, D.C.P., 16
Schneiders, B., 1054
Schreiner, B.T., 466, 944, 945
Schrijver, K., 484, 1006-1008, 1010
Schroeter, T.G., 10, 533, 546, 559-561, 616, 629
Schulze, D.J., 836
Schwarz, E.J., 336
Schweger, C.E., 877
Scoates, R.F.J., 562
Scott, B.P., 175, 369
Scott, S.D., 171, 177, 403, 407, 424, 495, 636, 637, 644, 648, 670, 782, 788
Sea, B., 979
Seal, R., 209
Seaman, A.A., 465
Sego, D.C., 1028
Seguin, M.K., 311
Senior, S., 346
Seongho, Na, 333
Sevigny, J., 847
Sexton, A.J., 799, 837
Seymour, K., 739
Sham, P., 259
Sharma, K.N.M., 52
Sharpe, D.R., 946
Sharpe, M.R., 622
Shaw, D.M., 184
Shaw, E.G., 301
Shea, G.T.F., 403
Sheng, J., 408
Sherman, D.J., 406
Shetsen, I., 947
Shields, H., 350
Shilts, W.H., 948-950
Sibbald, T.I.I., 110
Simandl, G., 469
Simard, M., 53, 1061
Simpson, E.L., 796, 838
Simpson, M.A., 466
Sinclair, A.J., 164, 253, 254, 472, 528, 564, 572, 575
Sinclair, W.D., 563
Singh, C., 774, 775
Singhal, R.K., 353
Sinha, A.K., 278, 381
Sketchly, D.A., 564
Skibo, D.M., 598
Slaney, V.R., 976
Slezak, L., 1045
Slimmon, W.L., 110
Slivitzky, A., 54
Smith, G.G., 445
Smith, J.V., 654
Smith, J.W.J., 198
Smith, P.K., 201
Smith, P.M., 489, 565
Snowdon, L.R., 152-155
Soles, J.A., 352, 630
Solomon, S., 436, 991
Souther, J.G., 631, 1168
Sprenke, K.F., 328
Springer, J.S., 467, 468, 534, 566, 977
Spry, P.G., 670
Srivastava, S.P., 1169, 1170
Stalker, A.MacS., 951
Stanley, C.R., 253
Stauffer, M.R., 861, 862, 1046, 1157
Stea, R.R., 952
Steele, K.G., 137, 868
Steger, H.F., 145
Stelck, C.R., 1104
Stevens, K., 567
Stipp, J.J., 218
St. Julien, P., 1150-1152, 1156
St. Louis, R.M., 196
Stokes, A.W., 368
St-Onge, D.A., 942, 943
St-Onge, M.R., 1138
Storer, J.E., 744
Stott, D.F., 1105, 1106
Stouge, S., 681
Stout, M.Z., 820, 821, 848
Strauss, P., 1126, 1170
Strobl, R., 1009
Stronach, N., 693
Strong, D.F., 389, 840
Struik, L.C., 1087
Suhr, G., 833
Susak, N.J., 202
Sutarno, R., 145
Svec, O.J., 354, 380
Swan, G., 374, 375
Sweet, A.R., 776
Swinamer, T., 799, 827
Syme, E.C., 13
Syvitski, J.P.M., 1047, 1048
Szymanski, J.T., 671

T

Tanguay, M.G., 978, 979
Tanner, M.F., 172, 176
Tassé, N., 1006-1008, 1010
Taylor, F.C., 839
Taylor, G.C., 1121
Taylor, P., 399
Taylor, R.B., 363, 425, 1049
Telford, P.G., 389, 599
Tella, S., 100, 101
Teller, J.T., 953, 1050
Templeman-Kluit, D.J., 11, 1107, 1113, 1161
Terasmae, J., 185, 954, 955
Teskey, D.J., 244
Thevenin, J., 279
Thibault, J., 465, 932
Thibault, Y., 800
Thivierge, R.H., 1146
Thomas, A., 55
Thomas, D.J., 39, 110
Thomas, M.W., 110, 111
Thomas, P., 568
Thompson, P.H., 102
Thompson, R.I., 63, 1088, 1122
Thorkelson, D.J., 73

Thorpe, R.I., 203, 569
Thorsteinsson, R., 31
Thurston, P.C., 104
Tilkov, M., 254
Tipper, H.W., 1108
Toews, N.A., 377
Toogood, D.G., 370
Tozer, E.T., 720
Tremblay, A., 469
Tremblay, G., 56
Tremblay, L., 1147
Trettin, H.P., 103
Tripp, R.P., 721
Troop, D.G., 488, 576, 632
Trottier, J., 571
Trudel, P., 271, 477, 547
Trzcienski, W., 483
Tsikos, G., 1171
Tuach, J., 840
Turek, A., 14
Turnock, A.C., 668, 672, 863

U

Uffen, R.J., 118
Utting, J., 777
Uyeno, T.T., 722

V

Valade, M., 520
Valiquette, G., 178, 633
Vallee, M.A., 273
van Breemen, O., 235
van de Poll, H.W., 1089
van de Rep[illegible]W., 1011
van der Kamp, G., 391, 395
van der Leeden, J., 57
Vanderveer, D.G., 956
Vander Voet, A., 146, 147
van Everdingen, R.O., 396-398
Veillette, J.J., 957, 958
Verleun, L., 618
Vilks, G., 723, 1012
Vincent, E.E., 778
Vincent, J.-S., 959-962
Vladut, T., 353, 376
von Bitter, P.H., 436, 724-727, 860, 1013
Vongpaisal, S., 377
von Gruenewaldt, G., 622
von Rosen-Spence, A., 572
Vos, M.A., 470, 471
Vu, Xuan Lan, 573

W

Wade, J.A., 1109
Wadge, D.R., 308
Waitzenegger, B., 179
Walker, D., 1014
Walker, J.A., 1189
Wall, J.H., 728
Walter, R.C., 963, 1187
Wang, D., 637, 788
Wang, X., 768
Wardle, R.J., 82
Wares, R., 574
Warner, B.G., 921
Warren, H.V., 180, 204
Wassenaar, L., 187
Waters, P., 963
Watson, S., 131
Watts, S.H., 964
Weber, W., 14
Wehmiller, J., 918
Welhan, J.A., 156, 389
Westgate, J.A., 965, 1187
Weyer, K.U., 390
Whalen, J.B., 841
Wheeler, J.O., 74
Whelan, G., 55
White, G.V., 486
White, J.C., 852, 1140, 1172
Whiting, R.H., 575
Whittaker, P., 576
Whittaker, S.H., 1093
Wicks, F.J., 662, 669, 673, 674, 856, 857
Wightman, D.M., 1015
Wighton, D.C., 729
Wilcox, A.F., 245
Wilkinson, D., 241
Williams, G., 1009
Williams, G.K., 1139
Williams, H.R., 864, 1148, 1149
Williams, P.F., 853, 1123-1125, 1127, 1128, 1167, 1173
Wilson, B.C., 1174
Wilson, C., 1188
Wilson, J., 577
Wilson, J.W.L., 663
Wilson, M.V.H., 729, 742, 745-748
Wilton, H.C., 578
Winn, C.E., 955
Wolberg, A., 990
Wolf, R.R., 986
Wolfson, I., 824
Wood, D., 55
Woods, D.V., 289, 290, 307, 326
Woodsworth, G.J., 12, 75, 211
Workman, D., 347
Wright, J.A., 436
Wright, W., 966

Y

Yanagi, T., 217
Yeo, G., 23, 24, 32, 634, 1140
Yorath, C.J., 1110
York, D., 225
Young, G.A., 710
Young, R.P., 290
Youngman, P.M., 740
Yu, Y.S., 377

Z

Zaitlin, B.A., 1031
Zeman, A.J., 137, 138
Zentilli, M., 579-581, 1189
Zilans, A., 611
Zippi, P.A., 779
Zodrow, E.L., 255, 780, 781, 1090, 1091
Zwanzig, H.V., 16